

SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

Lewis  
DeLong  
Brownell

Date 2 Dec 67  
Pg. # 1

SPECIMEN

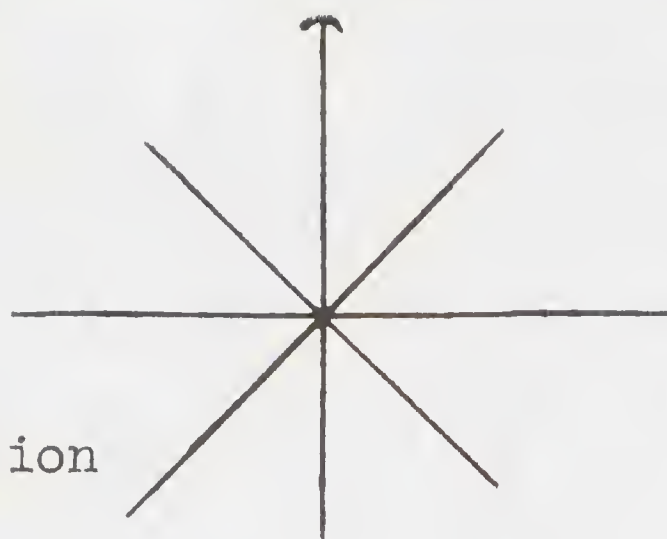
or

TIME SPECIES # DIR. BAND NO. REMARKS

	1000				Begin observations off Pt. Loma
	03	Cal Gull	2-	ce	Ad following
		Gull sp	4-	ce	"
	12	Heermanns	1-	ce	Imm
TF	14	Bonaparts	2-	S	
	16	Br Pel	14-	N	
TF	16	Coronout	1-	E	
	18	Br Pel	20-	N	
	20	Bonaparts	1-	E	
TF	22	Br Pel	8-	NW	
	25	Gull sp	8-	ce	on H <sub>2</sub> O
	27	Juags sp	1-	SW	
TF	30	Br Pel	95-	N	} Together
		Coronout	2-	N	
TF	31	Br Pel	125 ± 25	NW	
TF	32	Coronout	15-	NW	
TF	32	"	14-	NW	
TF	33	Br Pel	70 ± 10	NW	
TF	33	" "	24-	NW	
TF	33	Coronout	201-	NW	
TF	35	" "	2-	NW	
TF	35	Br Pel	13-	NW	
TF	36	" "	12-	NW	
TF	39	" "	22-	NW	
	39	Bonaparts	4-	S	
	43				cal Sca lion porpoising (1)
TF	44	Br Pel	3-	NW	All Ad
TF	45	Bonaparts	2-	S	
	46	Br Pel	30-	NW	
	51	Heermanns Gull	1-	ce	on H <sub>2</sub> O Ad
	55	Cal Gull	1-	ce	Ad
	1100	Gull sp	15-	ce	on H <sub>2</sub> O
	03	Bonaparts	2-	W	
PF	06	Large Tern	2-	SW	Caspian, Royal -
	10	Br Pel	60+		
		W. Gull	200 ± 80		
		Heermanns Gull	100 ± 25		
		Coronout	2-		
		Loom sp	7-		
	20	Sabins Gull	1-	ce	on Kelp
	23	Bonaparts Gull	1-	ce	
	26	Bonaparts Gull	1-	ce	
	27	" "	1-	ce	
	31	Coronout	1-	E	
TF	37	Br Pel	11-	NW	
	43	Gull sp	4-	ce	on H <sub>2</sub> O
	50	Heermann Gull	2-	W	
	52	Br Pel	6-	ce	on H <sub>2</sub> O
	1200	"	2-		on H <sub>2</sub> O
	1201	Heermann's Gull	2-	W	
	1205	Br Pel	1-		on H <sub>2</sub> O
TF	10	"	7-	NW	
	23	"	1-	N	



Ship  
Direction



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Date 2 Dec. 1967  
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SPECIMEN  
OR

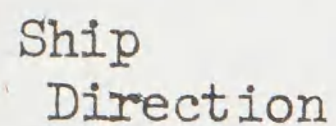
TIME SPECIES # DIR. BAND NO. REMARKS

1231	Br Pel	3-	N		
32	COMMONANT	1-	S		
47	West. GULL	1-	N		
54					adult
1307	Heermann's GULL	1-			4-6 <u>Lagenorhynchus obliquidens</u> TO THE <del>WEST</del> <sup>EAST</sup> SWAN ACROSS BOW
1310	GULL spp.	30±10	S		ALL TOOK BREATH SLOW SWIMMING ALONG ONLY A COUPLE OF FEET BELOW
1310			ll		THE SURFACE - 2 SUBGROUPS. MAY HAVE BEEN FEEDING WHEN FIRST NOTED. AS
1310	Br Pel	10±2	ll		THEY WERE STATIONARY.
1320					GULL ON H <sub>2</sub> O - feeding -
1325	Br Pel	6-			SEA LION? - Feeding? DIVING
	GULL spp.	6-	ll		GULL ON H <sub>2</sub> O - feeding
27	Br Pel	1-	ll		SEA LION - FLOATING AT SURFACE WHEN FIRST NOTED - THEN SWAM TO <sup>EAST</sup>
29	"	1-			ON H <sub>2</sub> O } together
35	Br Pel	12-	S		ON H <sub>2</sub> O } adult
	Heermann Gull	11-	ll		
	Pel Cormorants	4-	ll		Feeding together on H <sub>2</sub> O
39	Pom Jaeger	1-	ll		
44	Bonaparts	2-	ll		Int Ad
44	Fulmar	1-	ll		Being chased by Pom Jaeger
44	Common	1-	ll		on H <sub>2</sub> O DAVIS
	Murre	1-	ll		
50	Parasitic Jaeger	1-	ll		
56	Common Murre	1-	ll		
58					
1400	Common Murre	1-	ll		<u>Globicephala</u> sp 40±10 in 3 or 4 subgroups - MORE OR LESS
02					STATIONARY ON SURFACE - Feeding? DIVE TIME 30-45 second
05	Br Pel	15-	ll		MIXED AGES - ALL on feeding - several adult male
07	Small Alcid	1-	N		NO BIRDS 2 <u>Globicephala</u>
					cut seal line purposely (1)
1430	Br. Pelican	14-			
	Large gull	6-			
	Jaeger spp	1-			
1440					<u>Zalophus</u> - near floating outch
					<u>Therapsids</u>
1500	B-L Kittiwake	1-	888		
1511	Puffin	1-			
1520					
1530					Clear sky.
1610					OBS'S STARTED AGAIN
1625	Pom Jaeger	1-			<u>Globicephala</u> sp 75±15 all noted were medium size range
					moving slowly south FLANK IN LINE 4 or 5 subgroups
					ad. 14 p L.

SI-MNH-958-e

Rev. 5-66





OBSERVERS:

Date \_\_\_\_\_

2 Hz

Pg. #

5

[illegible]

SI-MNH-958-e  
Rev. 5-66



15 MS - 18

3 Dec - Enter at Elm 1135

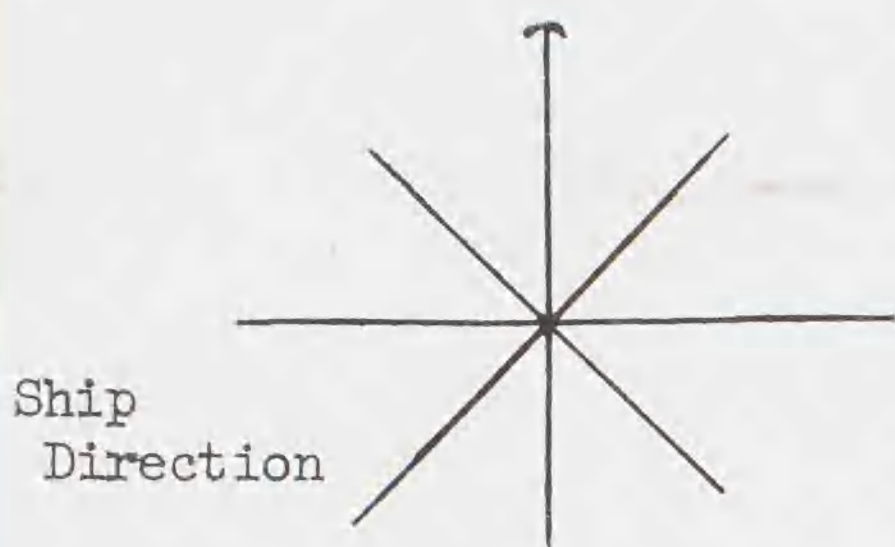
(Hunt)

BFA - 2	3	(53)	1	(54)	6
Phalarope 20	1	(21)			21 ✓
Fulmar 5	45	(10)	1		11 ✓
Sooty Shear. 2	2	(4)	6		10 ✓ (all dark)
Pale-footed Shear 1		(1)			1 ✓
Rhino. Ark. 2	1	(3)			3 ✓
Herring gull 8	15	(15)	9		24 ✓
Loom sp	1	(1)			1 ✓
WRSP	25	(25)	3		28 ✓
Black turnstone	1	(1)			1 ✓
B-L. Kittiwake	1	(1)			1 ✓
Storm Pet.	1	(1)			
Gull sp	2	(2)			2 ✓
Pom Jac	1	(1)			1 ✓
32	59		20		141

59  
32  
111

1135-1515  
Section 3  
1515-1700  
Section 2





SMITHSONIAN INSTITUTION  
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AT SEA DAILY LOG - E

OBSERVERS:

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SPECIMEN  
or

S.R. - 1/6. Rf. Corruption

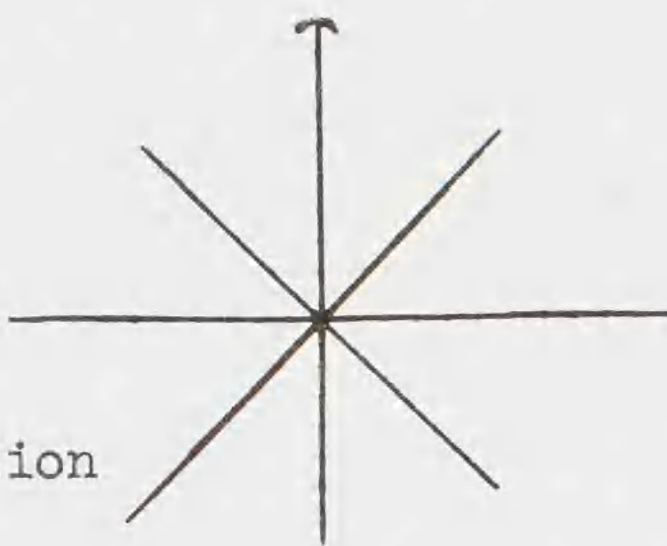
Date 3 Dec 67  
Pg. # 1

TIME SPECIES # DIR. BAND NO. REMARKS

0651					Sunrise Large swells light high overcast
52	W. Gulls H. Gulls cal Gulls	30			Following - all identified but no count of each species possible
0704	R. Phul	5			all H2O winter plumage
14	Gulls SP	50			same as above
14	Sooty Shear	1	SW		
0720	Phalarope	2	S		
0722	Chimney	1	SW		
0730					Porpoise (Dall + Bel 2) - <del>15</del> 20 ± 5 Nose came to Lip. Pushed water ahead; finally disappeared.
0735					Dall Porpoise 15 ± 5 - not breaking water but making a streak of ca. 6-8 ft of white water with the head as they surfaced.
0747	Phalarope	1	SW		Probably reads.
0750					Stellar Sea Lion - Bull - large head straight out of water - possib. of moving.
0755	New Zealand Buller/ Puffin Shear.	1	SW		for app.
0800	Pomarine Jaeger	1			1 ad, intermediate phase.
0810	Phalarope	15 ± 10	SW		



Ship  
Direction



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OBSERVERS:

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Date 3 Dec 1917  
Pg.# 2

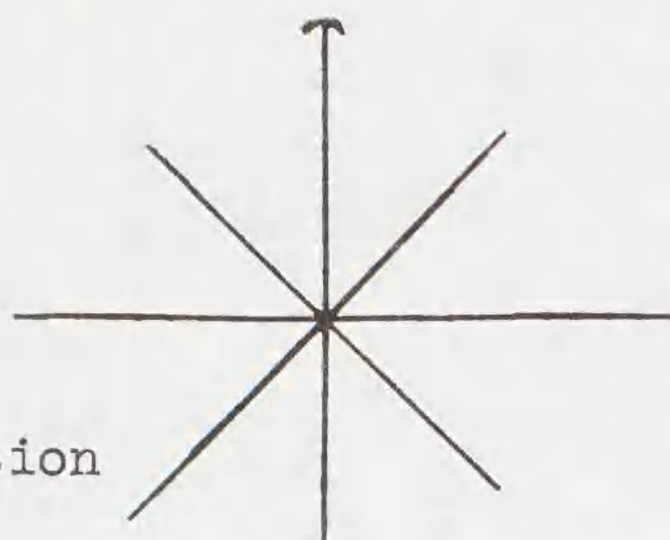
SPECIMEN  
or

TIME SPECIES # DIR. BAND NO. REMARKS

0805	Pomarine	1 -			5 Ad. <i>Th. b. lineatus</i> & house
25	R. Phal	10 -	ce		
27	Fulmar	1 -	ce		Davis
32	R. Phal	25 ± 5	ce		
37	"	2 -	ce		
38	Shear ?	1 -	ce		New Zealand or Puffin-footed
42	R. Phal	6 -	w		
46	" "	20 ± 2	ce		
47	" "	3 -	ce		
53	Fulmar	1 -	ce		
54	R. Phal	3 -	w		DK
56	Phal sp	1 -	ce		
0907	Sooty Shear	1 -	ce		
27	" "	1 -	ce		In shadow
30	BFA	1 -	ce		Following white rump
35	comorant	1 -	SE		
38	R. Phal	1 -	w		
42	BLIS	1 -	ce		Turn
0950	Phalarope	3 -	NW		
0956	Fulmar	1 -	88		PK.
1000					Long/Phal - if long are in or if short - Winters.
1000					Western gulls & Herring gulls still
1005	Phalarope	4 -	NW		Common - Califs. gone.
1016	Herring gull	2 -			Sitting on log - 1 Ad, 1 second yr bird.
1017	Phalarope	17 -			Sitting near floating kelp.
1022	B. K. Hyacinth	1 -	88		back water - fine water. - in -
1023	Herring gull	3 -			Landing. - 2 Ad, 1 imm.
1025	North Sea Phalarope	250 ± 50	88		on water - near floating kelp mass.
1026	<del>Red-billed</del> gull	2 -	2		on H. H. near phalaropes - white wing patch & white on side of face



Ship  
Direction



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OBSERVERS:

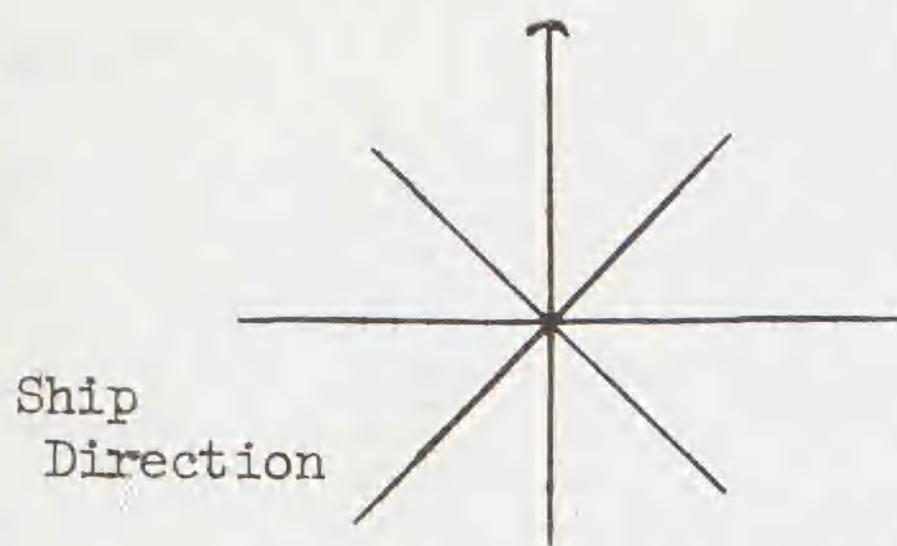
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Date 8 Dec 1967  
Pg.# 3

SPECIMEN  
or

TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
1030	BFA	1-			Totals 2 - 1 Ad f / 1 LW
1035	Rissat.	1-	S		
1037	Phalarope	2-	SW		
1039	Sooty Shear	1-	SW		
1045					more change of 180° during an unusually steady period there were 28 gulls counted. The numbers was on 1.5-2.0 miles. This reflects general abundance for this Area - although they have not been recorded.
1046	N. Phal.	52-	SW		flushed for H.H.
1050	"	8-	SW		
1051	Sooty Shear	1-	S		
1055	"	2-	N		
1058	M. Phal.	1-			m/H H New on 4 inch piece of Kelp.
09	"	4-	S		
1100	Shearwater gull	1-	SW		Ad - f / y in and bow.
1115	Rissat.	1-	S		imm - back out - back in
1122	Calif. Gull	1-	SW		around bow - ad - definite





Ship  
Direction

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OBSERVERS:

Date 3 Dec  
Pg.# 4

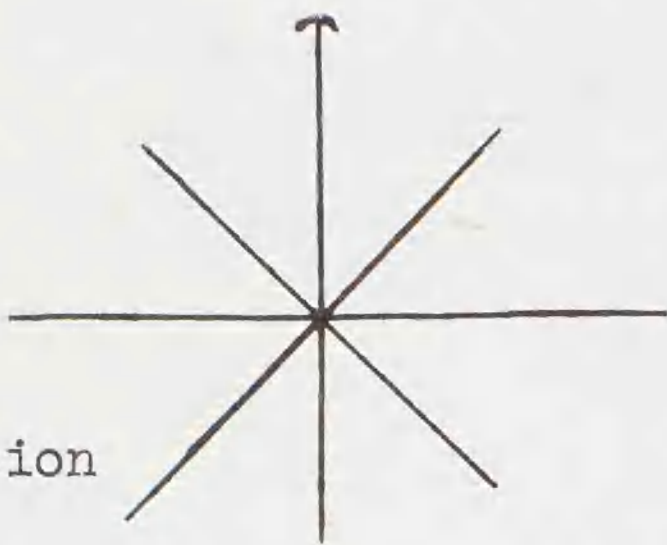
SPECIMEN  
or

TIME SPECIES # DIR. BAND NO. REMARKS

1125	Herring Gull	1-	sg		Ad.
1128					Have been in f / outing to ship patches
1130	N. Phalarope	2-			all An. - another app bow - now.
1132	Phalarope	1-			on H <sub>2</sub> O
1133	"	2-	sg sg		
1135					One arrived to 270°
1137	Phalarope	1 ✓	sg		
1138	Herring Gull	3			Ad.
1145	Phalarope	4 ✓	S		
1150	"	2 ✓			on H <sub>2</sub> O
1153	Fulmar	1 ✓			dk
1158	Sooty Shear	1 ✓	E		clean w/ white underwings
1207	Fulmar	1 ✓			
15	Phalarope SP	2 ✓			Tot.
25	Sooty Shear	1 ✓	SW		off H <sub>2</sub> O
27	Fulmar	1 ✓			
28	Phalarope SP	1 ✓			
30	Fulmar	2 ✓			off H <sub>2</sub> O PK
33					Sperm whale 1 ca 40' flukes
46	BFA	② ✓	ce		
1305	Pink A.	1 ✓	W		
106	Forstall Shear	1 ✓	ce		like DISCOALY-tail with white bill. P. carmine
16	BA	1 ✓	ce		on H <sub>2</sub> O
12	Phalarope SP	10+ ✓	ce		



Ship  
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Date 3 Dec 67  
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SPECIMEN

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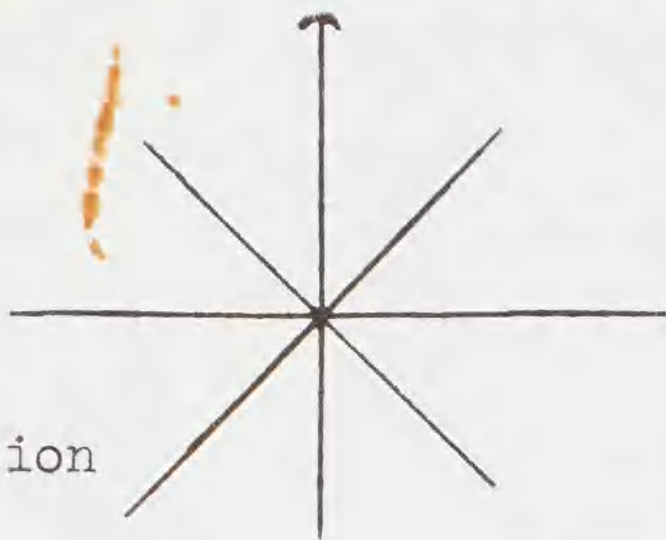
TIME SPECIES # DIR. BAND NO. REMARKS

1316	RA	1 ✓	ce	0NH20	
20	BFA	(3) ✓	ce		Feeding
20	H. Gull	15 ✓	ce		" Mostly Ad
27	Loon sp	1 ✓	SE		
41	Fulmar	1 ✓	ce		
43	WRSP	1 ✓	ce		
44	Fulmar	1 ✓	ce		D/K
45	LWRSP	20 ± ?	ce		Feeding - Albatrosses landed + Feeding also
50	Fulmar	1 ✓	ce		
53	"	1 ✓	ce		
56	"	1 ✓	ce		
1400	Black Turnstone	1 ✓	ce		
01	N. Phalarope	1 ✓	SE		
05	BLB	1 ✓	ce		
06	BFA	1 ✓	W		
08	St. Pet	(4) ✓	ce		
11	Jaeger sp	1 ✓	ce		
		2 ✓	E		
1425	BFA	1 ✓			
1426	Sooty Shear	1 ✓	S		
1432	"	1 ✓	S		
1456					Not Direct Flight. 1435 - same bird flew west of the work
1430-1445					Dall Porpoise (15) approached ship within 200 meters. Some surf water surging as observed earlier.
1455	WRSP	1 ✓			assess theory L equal - sea cond. deteriorating
1504	Pom Gull	1 ✓			Larks - pelagic worn & bleached to near brown.
1506	WRSP	1 ✓	SS		st. Dark pho
1507	"	1 ✓	SS		
1515	"	1 ✓	SS		

Total 5



Ship  
Direction



SMITHSONIAN INSTITUTION  
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Date 3 Dec  
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SPECIMEN  
or

TIME SPECIES # DIR. BAND NO. REMARKS

1516 ~~Foca~~ / man 1 ✓ ———— DK

1521 Sooty Shear 2 ✓ ————

1530 " 2 ✓ ———— together.

1545 ———— W ———— Joined above two and are following about 200-300 meters off port beam. Have been doing so for 15+ min.

1545 ———— ———— Ca 24 Herring gulls following. They plus 5 P/B terns. Terns joining abandoned ship & f/lan & landed Ca 500 meters to port. - feeding.

1600 ———— ———— Two ~~one~~ sooty shear still following.

1602 BFA 1 ✓ ———— Now 6 - 2 white 2 dark, 2 white

1610 WRSP 1 ✓ ———— W

1615 ———— ———— Sooties followed until now. Seen to have deserted.

44 Sooty shear 1 ✓ ————

55 LWRSP 2 ✓ ————

58 Sooty shear 1 ✓ ———— SE

1700 ———— ———— Sunset close



4 Dec

BFA - 24

LA - 1

(<sup>16</sup>~~12~~ dk 1++)

Sooty Shear - 2

Phalarope - 4

R. Phal - 4

W RSP - 7

E-T Pet - 1

M-w Gull - 1 1st yr

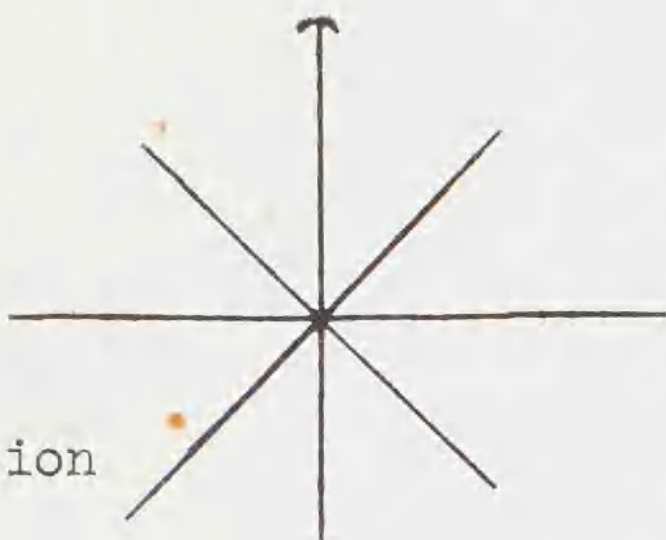
Herring Gull - 1 Ad.

45

SR-55 - Section 1



Ship  
Direction



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Date 4 Dec  
Pg.# 1

SPECIMEN  
or

TIME SPECIES # DIR. BAND NO. REMARKS

0716 SR - bay is also

0720 Sooty 1 ✓ S BFA - 3 = (WR, 1dk, 1unk)

0724 Sooty Shear 1 ✓ S

0745 BFA 1 ✓

0755 Phalarope 4 ✓ S

0802 WRSP 2 ✓ S

0815 BFA 4 ✓

0915 LA 1 ✓

30 Red Phal 1 ✓ NE

35 G-W Gull 1 ✓

47 F-T Petrel 1 ✓ SE

50

1003 LWRSP 1 ✓

35 R. Phal 1 ✓

37 " " 2 ✓ NE

1107 LWRSP 1 ✓

1405

1430 BFA 17 ✓

LA 1 ✓

1555 LWRSP 2 ✓

1506 H. Gull 1 ✓

1613 G-W Gull 1 ✓

1630 BFA 7

1703 LWRSP 1 ✓

1720

SR - bay is also  
BFA - 3 = (WR, 1dk, 1unk)

Nil of following.

Following 8.

Following

Following Imm - 1st yr.

cc to S

cc to E

Following = 12dkR - 1LH

Ad Following

Following 1st year

Total 24 following + 1 Layer

16dk 2LH

SS - close obs.



5 Dec

Longman Albat.

BFA

2

Herring gull

15

(3 Ad & 12 1 & 2 yr birds)

Storm Pet

1

W R S P

5

Red Phal

2

Sooty Shear

2

Cook's Pet

2

Shearpet

1

Arctic Loon

①

Phalarope sp

Fulmar

B L Kittiwake

R-T Loon

Jaeger sp.

G W Gull

Xantho murrelet

4

55

70

16

~~12~~ 3

1

7(-2)

2

244

263(-1)

17

~~24~~ 26

38

56(-3)

2

3

1

12 (-2)

12

1

1

1

8

8

1 154

1(-1)

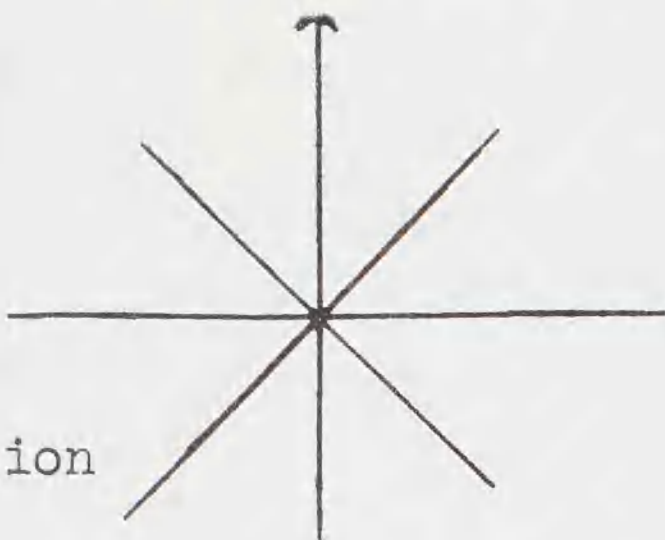
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(3)

443



Ship  
Direction



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OBSERVERS:

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Date 5 Dec 67  
Pg. # 1

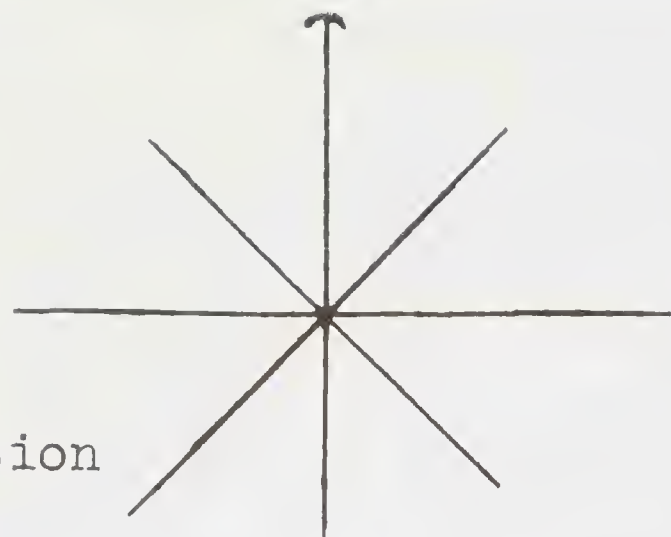
SPECIMEN  
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TIME SPECIES # DIR. BAND NO. REMARKS

0700					Sunrise begin observations
05	H Gull	4 ✓	e		Following 2 1st year 2 Ad
	BFA	1 ✓	ce		" Davis Run
17	H. Gull	9 ✓	e		
30	BFA	2 ✓	ce		
37	<del>SP?</del> SP?	1 ✓	ce		
0805	Leach's SP	1 ✓	ce		
25	" "	1 ✓	ce		
38	" "	1 ✓	ce		
53	H Gull	11 ✓	ce		Following 1 Ad rest 1 & 2nd winter
56	" "	15 ✓	e		3 Ad
0906	LH	1 ✓	ce		Following
16	B. Phal	1 ✓	NE		
25	Sooty Shear	1 ✓	ce		Rel 3
31	" "	1 ✓	ce		
31	Leach's SP	1 ✓	ce		
0946	<del>16</del>				Killer Whale 1 only
0950	WRS P	1 ✓	SW		14-18 ft. Dorsal ca 2.5 ft.
0954	Phalanne. so.	1 ✓	888		Saddle aft of Dorsal showed well. Blows not well defined, only small bullhorn spray.
1010-1025					- MOB - Drill
1026					BCA - 2 DK 1 Lt
1045	Cook's Petrel	2 ✓	888		For obs. identification more by behavior than manual. white underwings & belly ventral pterylia. mantled light gray. Behavior: short glides with little to moderate arch, turning blowing - shallow - flaps and gliding again as S/over than other small Pterodroma
1048	Shear/pet	1 ✓	S		Prob Sooty Shear



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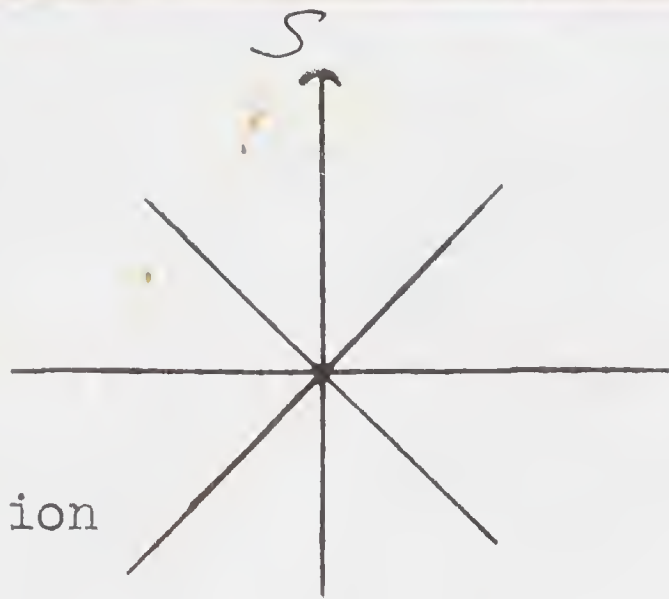
Date 5 Dec 1967  
Pg. # 2

SPECIMEN  
or

TIME SPECIES # DIR. BAND NO. REMARKS

1056	Arctic Loon	1 ✓	SW		flew around for some time. Bill angle could not be seen. Angle of wing & body in flight agreed with arctic. However the chance of occurrence of a H. skotts here is more probable than H. arctic so we give it a reliability of 2.
1059	Sooty Shearwater	1 ✓	W		
1110	Phalarope	1 ✓	SW		
1120	<del>Birds</del> Shear/Pets	2 ✓	SW		Procellariids - Rel 2
1127	Phalaropes	6 ✓			on H <sub>2</sub> O near patch of floating macroalgae
1130	"	3 ✓	SW		
1132	Fulmar	1 ✓	SW		DK. Rel 2 - (could have been Sooty)
1140	LA	1 ✓	SE		
1140	Phalarope sp.	1 ✓	NE		but was very slow, probably feeding.
1145	Sooty Shear	1 ✓	E		
1200	R. Phalarope	2 ✓	SE		on H <sub>2</sub> O
03	BLK	1 ✓	W		Ad
05	R. Phal	1 ✓	SE		off H <sub>2</sub> O
10	" "	4 ✓	SE		
12	R. Phal	6 ✓	SE		cc to S
15	BFA	4 ✓	SE		on H <sub>2</sub> O by log
16	Sooty Shear	1 ✓	SW		
17	" "	2 ✓	SW		
18	Phal sp	1 ✓	S		
19	R. Phal	1 ✓	S		
20	Sooty Shear	1 ✓	SE		on H <sub>2</sub> O next to buoy
23	" "	1 ✓	SW		
24	R. Phal	1 ✓	SW		
25	Sooty Shear	6 ✓	SE		
27	R. L. Loon	1 ✓	SE		circling ship
28	Sooty Shear	10 ✓	SW		
29	R. Phal	1 ✓	SE		
30	Sooty Shear	3 ✓	SE		
32	R. Phal	1 ✓	SE		landed on H <sub>2</sub> O





Ship  
Direction

SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

Date 5 Dec 67  
Pg. # 3

SPECIMEN  
or

	TIME	SPECIES	#	DIR.	BAND NO.	REMARKS
FF	1237	H. Gull	35 ± 5	☉		Mostly Ad all together feeding & moving, to N.W. - like over a school of fish moving that direction
		Juvs SP	3			
		Sooty Shear	20 ± 5			
	40	" "	1	S		
	41	B. Phul	3	SW		
	44	" "	1			
	46	Phul SP.	1	ce		
	47	" "	1	SE		
	51	Sooty Shear	1	ll		
	1309	B. Phul	2	ll		
	10	" "	1	ce		
	11	Sooty Shear	2	S		
	14	Phul SP	2	S		
1	16	B. Phul	200+	ce		Probably Red on H <sub>2</sub> O in long thin lines several large slicks in Area
sec	18	Sooty Shear	1	ce		
3	19	B. Phul	25+	ce		
	24	" "	5	ce		
	24	" "	5	SW		
FF	35	H. Gull	20+			Toward slicks All together feeding & moving N like flock above
		Juvs SP	5			
		Sooty Shear	10+			
↓	1415					
sec	1418	BFA	6	ce		SKiff in on H <sub>2</sub> O 1 white wing / rest dark off H <sub>2</sub> O " "
6	32	Phul SP	2	ce		
	42	B. Phul	1	ce		
	47	Sooty Shear	1	S		
	49	" "	1	S		
	1513	" "	1	S		
	22	LA	1	E		
	27	G-W Gull	1	ce		
	1600					1st winter
	15					SKiff out
	48	LWR SP	1	ce		cc to W
in skiff -						
	1420					Xanthus murex 2
	1430					Leads S.P. - C. 11 R.L. Brownell
	1440					Xanthus murex 1



6 Dec '67

BFA	10	
LA	1	
WRS P	<del>16</del> 16	5
Sooty Shear	2	1
Herring gull	1	
Gr gull	1	
Storm pet	1	
R Phal	1	2

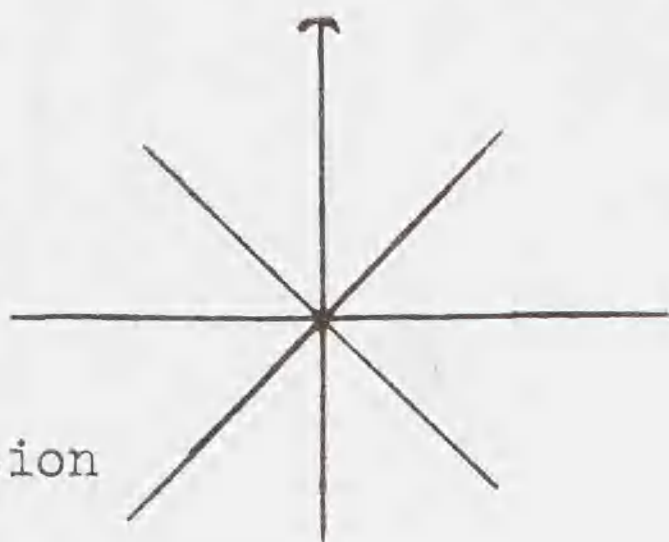
10	(5)
1	
21	(-2)
3	(-2)
1	
1	
1	
3	
41	

9 mi Sec 5

97 mi L 4



Ship  
Direction



SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

Date  
Pg. #

6 Dec '67  
1

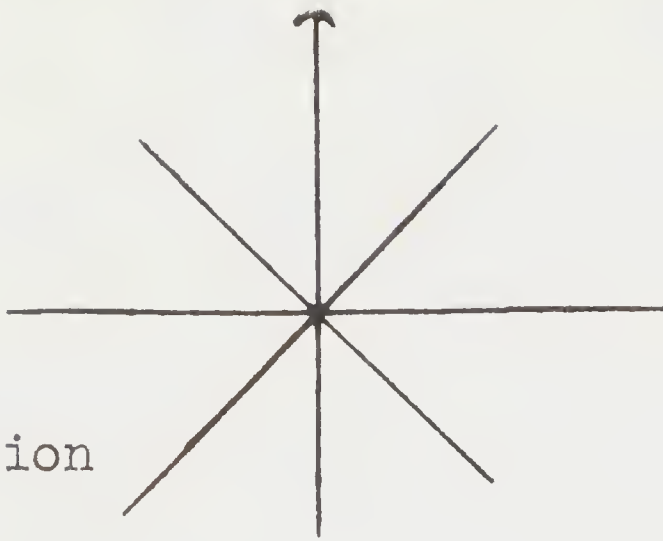
SPECIMEN  
or

TIME SPECIES # DIR. BAND NO. REMARKS

0705					SR begin obs.
0707	BFA	2 ✓			following
0720	WRSP	1 ✓	888		
0725	Sooty Shear	1 ✓	N		
0727	WRSP	1 ✓	882		
0728	Sooty Shear	1 ✓	88		
0728	BFA	7 ✓			total of 3.
0742	"	2 ✓			" 5
0810	Longman shear.	1 ✓	88		Hunting/foraging ca 1.5 mi off
0905	Leach's SP	2 ✓	ce		Starboard beam. Has not yet been attached
0915	BFA Laysan Horned Gull	10 ✓ 1 ✓ 1 ✓			t ship. Following
35	LWRSP	1 ✓	ce		
1035	"	1 ✓	ce		
39	"	1 ✓	ce		
42	GW Gull	1 ✓	ce		
1108	St Pet	1 ✓	ce		
10	<del>P. Phalarope</del>	1 ✓	ce		
22	LWRSP	1 ✓	ce		off H <sub>2</sub> O
1135					BFA - of 7 following 6 dark lines
1200	Gull	2			1 light 1 dark
1240	WRSP	3 ✓	888		(Horned Gull 1st yr birds - light buffy gray.
46	"	1 ✓	"		
51	"	4 ✓	ce		



Ship  
Direction



SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_

Date 6 Dec  
Pg.# 2

SPECIMEN  
or

TIME SPECIES # DIR. BAND NO. REMARKS

1255-1325					Passing through Squall. - Lt fog
1432	WRSP	2 ✓	CS		Rain.
1436	Phalarope	2 ✓			Swimming on and flushed from H <sub>2</sub> O.
1437	WRSP.	1 ✓	SW		on H <sub>2</sub> O.
1617	Sooty Shear	1 ✓	SW		
24	LWRSP	2 ✓	CS		
1644					CS to S
1706					Sunset close ab.



7 Dec.

Sec 5

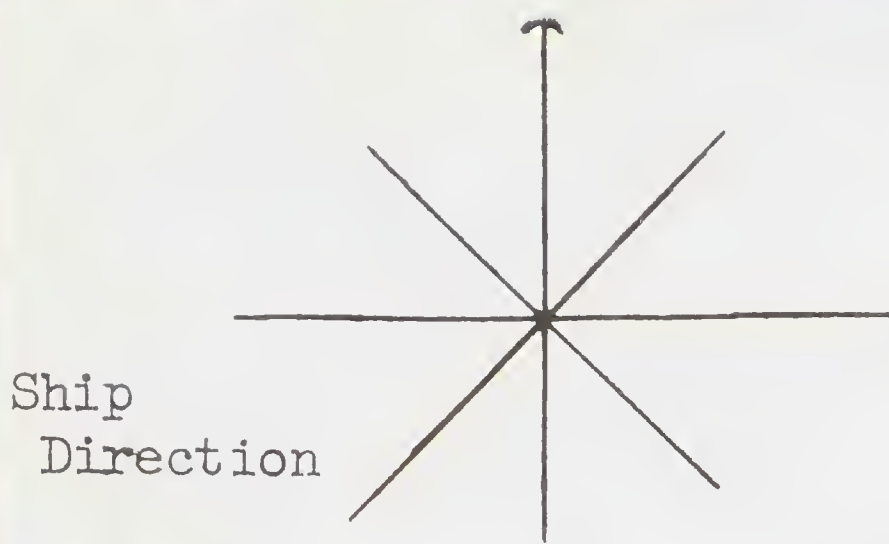
BFA - 3 ✓  
FT 1 ✓  
Sooty Tern 3 ✓  
WASP 8 ✓  
H gull 7 ✓  
B-w gull 1 ✓  
Phalarope 1 ✓  
P Phal 5 ✓  
BLK 1 ✓

---

Sec 6

Red Phal 13 ✓  
Phal sp 3 ✓  
WASP 4 ✓  
Sooty Tern 1 ✓  
Scup 4 ✓  
Sooty Tern 1 ✓  
Laysan Albatross 1  
BFA - 3





Ship  
Direction

SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

Date Dec 7, 1967  
Pg. # 1

SPECIMEN  
or

TIME SPECIES # DIR. BAND NO. REMARKS

0703					Survivor begins ab.
03	BFA	3 ✓	ce		Following
10	H. Gull	2 ✓	ce		1 Ad, 1st year
0805	G-W Gull	1 ✓	ce		1st yr.
10	LWRSP	2 ✓	ce		
34	Sooty Shear	1 ✓	SE		
34	LWRSP	3 ✓	ce		
51	Phalarope sp.	1 ✓	ce		Sat on H <sub>2</sub> O
0912	LWRSP	1 ✓	ce		
24	BLIS	1 ✓	S		Imm
40	F-t. Petrel	1 ✓	ce		
42	R. Phal	1 ✓	ce		off H <sub>2</sub> O
43	" "	2 ✓	ce		
53	" "	2 ✓	SSS		
56	WRSP	2 ✓	SSS		
1030					begin MOB Rills
1130					Close MOB
1130	Herring Gull	5 ✓			ONDP sheets entered TOTAL + FLAGGED abundance more 54
37	Sooty Shear	2 ✓	S		Total 7 (1 second yr: 4 1st yr. Birds)
46	R. Phal	1 ✓	E		
57	" "	4 ✓	E		
1207	Phal SP	2 ✓	E		Squall line moving, 14 From NW
12	LWRSP	1 ✓	ce		
13	R. Phal	8 ✓	E		up high
15					close down rain squalls.
1305	Scamp				OPEN
1320	DUCK sp.	1	S		white below - dark back - long neck - Scamp.
1352					Blue Shark on 5 ft near floating
1410	Scamp				steel "web float."
1410	Duck sp.	3 ✓	SSS		
1419	S.P. sp.	1 ✓	ce		Just picked up. Show some wing pattern.
1448	WRSP	1 ✓	SSS		Not saving - head too large - neck too short.
1452	Shearbird	1 ✓	S		returned again. - Scamp - specific determination not possible.
1525	Sooty Shear	1 ✓	SW		possible phalarope but alone and flying 50 ft x H.H.
1526	WRSP	1 ✓	SSS		
1557	Laysan Albat	1			Just an. Fall.





SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

Date 7 Dec '67  
Pg.# 7

SPECIMEN  
or

SI-MNH-958-e  
Rev. 5-66



Sept 8

8 Dec

ROD 15

Falcons 8

Sooty Tern 3

Wedge-tail 10

Brewer's gull 2

Shearwater - 2

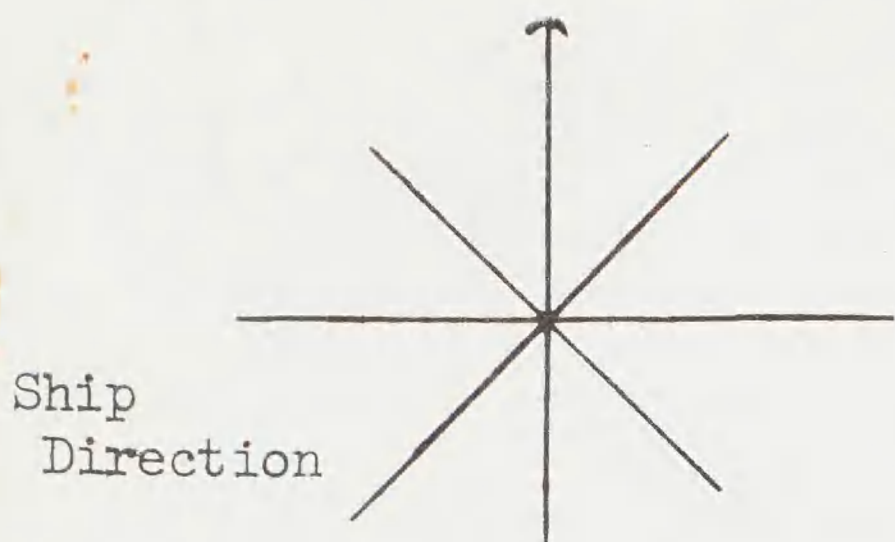
W. K. P. 5

S. P. 1

B. L. K. H. 1

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SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

Date 8 Apr  
Pg. # 2

SPECIMEN  
or

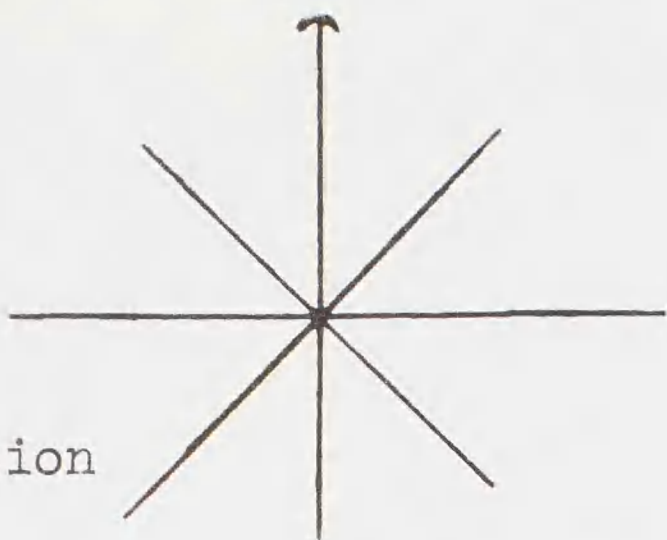
TIME SPECIES # DIR. BAND NO. REMARKS

1330	Fulmar	2✓	SW	DK	
1330	WRSP	1✓	SW		
1350	WRSP	1✓	SW		
1410	"	1✓	SW		
26	"	1✓	SW		Following ship
1435	S.P. sp	1✓	SW		
1437	G-w Gull	2✓	SW		
43	BFA	14✓	SW		Following 1st winter
43	Fulmar	1✓	SW		
1507	BFA	1✓	SW		Following DIS
17	Sooty Shear	1✓	SE		Imm
30	Fulmar	1✓	SW		Imm
37	"	1✓	SW		Imm
1610	H Gull	10✓	SW		1 Ad & 1st winter
	G-w Gull	1✓	SW		1st winter
	BFA	13	SW		
1625	BFA	15✓	SW		
1645	WRSP	1✓	SW		Following ship - make.
1705	Fulmar	1✓	SW		DK
1715					

BRADP sheets at 1611 total 100  
H Gulls + flagged abundance



Ship  
Direction



SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

*ADP sheets  
made. Dulls  
following to  
open water  
pages*

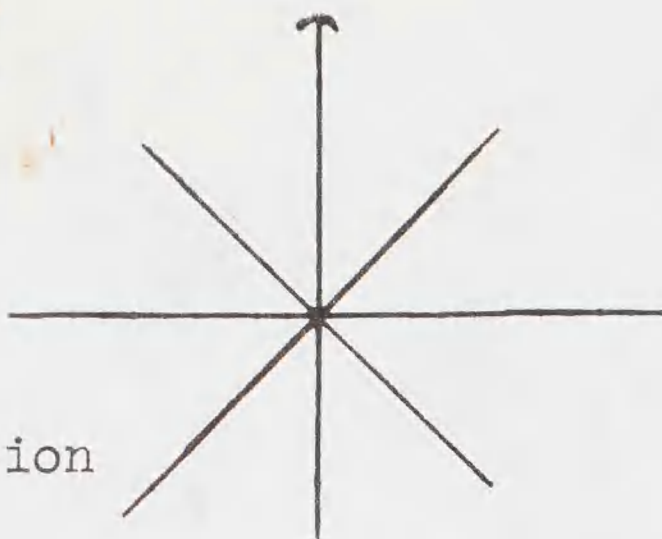
Date 8 Dec  
Pg.# 1

SPECIMEN  
or

TIME SPECIES # DIR. BAND NO. REMARKS

0650					SR - bay in O.Ls.
0840	BFA	2 ✓			following
0905	Herring gull	1 ✓			1st yr. (following (ba))
1008	Fulmar	1 ✓			DK.
1010	BFA	5 ✓			
1010	Herring gull	4 ✓			3 or 1st yr.; 1 ad. (following (ba))
1012	D-W Auklet	1 ✓			First yr. (foul (ba))
1014	Sooty Shear	1 ✓	SE		
1020	BFA	10 ± ✓			Dumped garbage (foul (ba))
	Herring gull	8 ± ✓			
	H. Auklet	1 ✓			
	SLW/ad	2 ✓			Med-sized Procellariid all dark No white at all T J L
1105	WRSP	1			
1127	Fulmar	1 ✓			DK.
1230	Sooty Shear	1 ✓	SW		
1230	BFA	12 ✓			m garbage





Ship  
Direction

SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

Date  
Pg. #

9 Dec 1967  
1

SPECIMEN  
or

TIME SPECIES # DIR. BAND NO. REMARKS

700 BFA 2 ✓ all Following

722 Gull sp 1 ✓ N

35 BFA 3 ✓

40 " 4 ✓ Full

49 Fulmar 2 ✓ Following ship

50 BFA 6 ✓

0900

05 N Phal 1 ✓ cc to E

37 LA 1 ✓ Flew under ship's bow

50 Sooty Shear 1 ✓

Following ship

1040 BFA 7 ✓

1155 BFA 9 ✓ All dark.

1225 BFA 7 ✓

Fulmar 1 ✓ Dumped Garbage All d/s 1 Banded Left + foot

1320 RTTB 1 ✓ Ad

1400 Fulmar 1 ✓ DK

1525 WRS P 1 ✓ sunset

1714 BFA 3 ✓

1715 LA 1 ✓

BFA - 9  
LA - 1

Fulmar - 4

Sooty Shear - 1

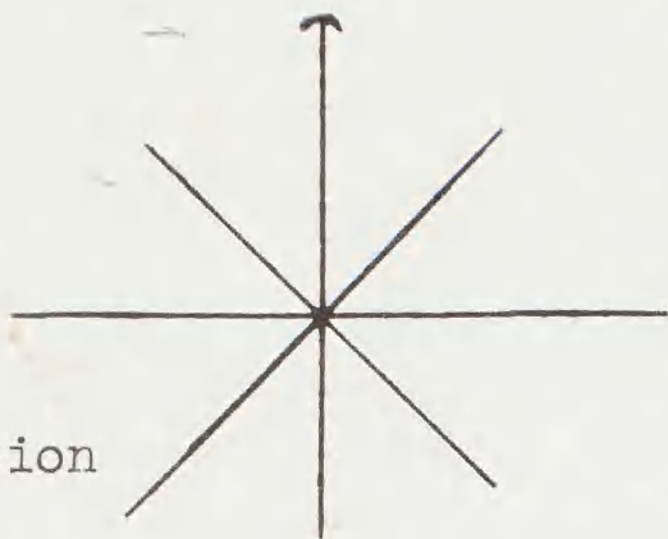
NPhal - 1

RTTB - 1

WRS P - 1



Ship  
Direction



SMITHSONIAN INSTITUTION  
DIVISION OF BIRDS  
AT SEA DAILY LOG - E

OBSERVERS:

Date 10 Dec  
Pg. # 1

SPECIMEN  
or

TIME SPECIES # DIR. BAND NO. REMARKS

0747	Hgull	1	SE		Ad.
0835					Humpbacks - 1.d. based on behavior jump out of the H <sub>2</sub> O 2X - seen several times moving to the west some dist
0900	BFA	1			Following
1130	Fulmar	1 -	all		DIS
1155	RBTB	1 -	240°		SPOTS OF BLACK ON dorsal surface / Tail feathers white BILL COLOR NOT NOTED
1210					2 or more whales blowing on surface. Spoken? 170° observed for 5 minutes
1309	Herring Gull	1	all		AD.
1320	" "	2	all		ADS
1323					Flying fish
1328	H. Gull sp.	3	all		1st year 2 Ad.
41	Fulmar	1 -	all		PK
1425	H. Gull	3	all		1st winter (1) 2nd winter (2) Noted all white.
1532	BFA	2	all		3-1st year
1533	Herring Gull				1-Ad - at 1554 totalled 6 H Gulls & entered ADP sheets as following & flagged.
1540	BFA	3	all		abundance.
1558	Herring Gull				
1645	BFA	4	all		
47	Pom Jaeger	1	all		
55	BFA	5	all		
56					

(put almost  
all on APP sheet)

1st year 2nd year  
11)



Date 2 Dec. Ship Tioga City <sup>LST</sup> (1158) Cruise No. 1

Organization \_\_\_\_\_ Recorder \_\_\_\_\_

Sunrise: Time \_\_\_\_\_ Position: Lat. \_\_\_\_\_, Long. \_\_\_\_\_

Sunset: Time 1645 Position: Lat. 33-26, Long. 118-06

Miles travelled from 0000 hours to sunrise = \_\_\_\_\_

Miles travelled from sunrise to sunset = 62

Miles travelled from sunset to 2400 hours = \_\_\_\_\_

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

1.

2.

3.

4.

5.

1645  
1135  
5-10

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

0100						
0200						
0300						
0400						
0500						
0600						
0700						
0800						
0900						
off pt. lower 1000	32-43	117-30	32-39	117-11		
1100			46	20		
1200	33-27	117-43	52-54	117-30		
1300			00	36		
1400	33-20	117-58	33-07	117-43		
1500			13	50		
1600	33-26	118-06	33-20	117-58		
1700			33-24	118-05		
1800						
1900						
2000						
2100						
2200	33-46	118-41				
2300						
2400						

34  
8  
24  
20  
62



Date 3 Dec Ship Troya County (LS1158) Cruise No. 1  
Organization \_\_\_\_\_ Recorder \_\_\_\_\_

Sunrise: Time 0651 Position: Lat. 34-30, Long. 120-<sup>55</sup>~~57~~  
Sunset: Time ~~1702~~ 1702 Position: Lat. 35-00, Long. 123-<sup>00</sup>~~00~~

Miles travelled from 0000 hours to sunrise = \_\_\_\_\_

Miles travelled from sunrise to sunset = 110

55 mi. in grid

Miles travelled from sunset to 2400 hours = \_\_\_\_\_

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
--	-------------	-------------	----------	-----------

1.	<u>05</u>	<u>270</u>	<u>1475</u>	<u>1135</u>
2.			<u>3.40</u>	<u>3.74</u>
3.				
4.	<u>1402</u>			
5.	<u>1135</u>			

5.27

1.84

4.7

4.44

1202

1135

5.27

18 mi. in grid

37

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
------	----------	-----------	-----------	----------	-----------	-----------

0100						
0200						
0300						
0400	34-18	120-26				
0500	23	37				
0600	23	48				
0700	33	00				
0800	34-38	121-12				
0900	43	24				
1000	49	35				
1100	58	47				
1200	35-00	121-59				
1300		122-17				
1400		27				
1500						
1600	35-01	122-56				
1700		3				
1800						
1900						
2000	35-01	123-39				
2100						
2200	35-01	124-03				
2300						
2400						



Date 4 Dec '67 Ship Tiogata (1158) Cruise No. 1  
Organization \_\_\_\_\_ Recorder \_\_\_\_\_

Sunrise: Time 0716 Position: Lat. 35-02, Long. 125-55

Sunset: Time 1723 Position: Lat. 34-09, Long. 125-45

Miles travelled from 0000 hours to sunrise = \_\_\_\_\_

Miles travelled from sunrise to sunset = ~~117~~ 121 117

Miles travelled from sunset to 2400 hours = \_\_\_\_\_

- | TIME OF FIX | TYPE OF FIX  | LATITUDE     | LONGITUDE     |
|-------------|--------------|--------------|---------------|
| 1. C/C      | from 270-180 | @ 0950-4 Dec | at Pt Birch   |
| 2. C/C      | 180-090      | @ 1400       | 4 Dec @ Cedar |
| 3.          |              |              |               |
| 4.          |              |              |               |
| 5.          |              |              |               |
- all in series

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

0100						
0200						
0300						
✓ 0400	35-02	125-14				
0500						
0600	35-02	125-39				
0700		52				
0800	35-02	126-07				
0900	35-02	21				
✓ 1000	34-55	126-35				
1100	45	33				
1200	34-34	126-31				
1300		31				
1400	34-11	126-31				
1500		12				
✓ 1600	34-10	126-04				
1700		50				
1800	34-06	125-35				
1900						
2000	34-09	125-06				
2100						
2200						
2300						
2400	34-10	124-08				



LST

Date 5 Dec Ship T.C. (1158) Cruise No. 1

Organization \_\_\_\_\_ Recorder \_\_\_\_\_

Sunrise: Time 0647 Position: Lat. 34-04, Long. 122-32

Sunset: Time 1657 Position: Lat. 33-18, Long. 121-30

Miles travelled from 0000 hours to sunrise = \_\_\_\_\_

Miles travelled from sunrise to sunset = 130

Miles travelled from sunset to 2400 hours = 30

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

1. 1614 - CC from 180 to 270 dr 5 km
2. 1200 CC from 090 to 180 dr 12 km
3. \_\_\_\_\_
4. 2000 C/C 270 to 260
5. \_\_\_\_\_

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

0100						
0200						
0300						
0400	<u>34-04</u>	<u>123-09</u>				
0500						
0600	<u>34-04</u>	<u>122-40</u>				
0700	<u>34-04</u>	<u>122-29</u>				
0800	<u>34-04</u>	<u>122-17</u>				
0900		<u>122-04</u>				
1000	<u>34-04</u>	<u>121-50</u>				
1100	<u>34-05</u>	<u>121-37</u>				
1200	<u>34-05</u>	<u>121-25</u>				
1300						
1400						
1500						
1600		<u>121-15</u>				
1700	<u>33-18</u>					
1800	<u>33-18</u>	<u>121-00</u>				
1900						
2000						
2100						
2200						
2300						
2400						



Date 6 Dec Ship Atoga City <sup>LST</sup> (1158) Cruise No. 1  
 Organization \_\_\_\_\_ Recorder \_\_\_\_\_

Sunrise: Time 0703 Position: Lat. 32-51, Long. 124-37  
 Sunset: Time 1719 Position: Lat. 32-47, Long. 126-30

Miles travelled from 0000 hours to sunrise = \_\_\_\_\_

Miles travelled from sunrise to sunset = 106

Miles travelled from sunset to 2400 hours = \_\_\_\_\_

9 mi in M. L. 5  
 97 mi in 4

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
--	-------------	-------------	----------	-----------

- 0745 c/c 260 - 270
- 0328 c/c 270 - 260
- 0615 c/c 260 - 270
- 1645 c/c 270 - 180
- 1845 c/c 180 - 090

85  
 12  
 97  
 9  
 106

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
------	----------	-----------	-----------	----------	-----------	-----------

0100						
0200						
0300	33-00	123-40				
0400						
0500						
0600						
0700	51	37				
0800	32-51	124-48				
0900	51	59				
1000	52	25 10				
1100	53	21				
1200	32-53	125-31				
1300	53	25-43				
1400	53	25-56				
1500	52	26-04				
1600	32-52	126-21				
1700						
1800						
1900						
2000	32-28	126-13				
2100						
2200						
2300						
2400						



Date 7 Dec Ship Tioga City (<sup>LST</sup> 1158) Cruise No. 1  
 Organization \_\_\_\_\_ Recorder \_\_\_\_\_

Sunrise: Time 0703 Position: Lat. 32-<sup>22</sup>~~30~~, Long. 123-40 <sup>090°/12</sup>  
 Sunset: Time 1700 Position: Lat. 32-<sup>29</sup>~~30~~, Long. 121-32 <sup>084°/12</sup>

Miles travelled from 0000 hours to sunrise = \_\_\_\_\_

<sup>1211</sup>  
0703-1140 = 54

Miles travelled from sunrise to sunset = 124

1140-1700 = 70 mi.

Miles travelled from sunset to 2400 hours = \_\_\_\_\_

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
1.	1915 <sup>c/c</sup>	090-180	@	32-19 - 121-00
2.	2300 <sup>c/c</sup>	180-270	@	sunrise
3.				
4.				
5.				

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

0100						
0200						
0300						
0400						
0500						
0600						
0700	22	40				
0800	32-23	123-27				
0900	23	14				
1000	24	02				
1100	24	49				
1200	32-24	122-37				
1300	22	24				
1400	21	11				
1500	20	21-58				
1600	32-19	121-40				
1700	18					
1800						
1900						
2000	30-10	121-02				
2100						
2200						
2300						
2400						



Date 8 Dec Ship Tioga City <sup>L5+</sup> (1158) Cruise No. 1  
Organization \_\_\_\_\_ Recorder \_\_\_\_\_

Sunrise: Time 0656 Position: Lat. 31°<sup>23</sup>~~25~~, Long. 122-40 <sup>180/12</sup>  
Sunset: Time 1708 Position: Lat. 31.21, Long. 124.<sup>25</sup>~~27~~ <sup>W</sup>

Miles travelled from 0000 hours to sunrise = \_\_\_\_\_

Miles travelled from sunrise to sunset = 97

Miles travelled from sunset to 2400 hours = \_\_\_\_\_

	TIME OF FIX	TYPE OF FIX	LATITUDE	LONGITUDE
--	-------------	-------------	----------	-----------

1.

2.

3.

4.

5.

9-1  
164FE  
81 msl

Hourly Positions:

Time	Latitude	Longitude	Wind Dir.	Wind Sp.	Wave Dir.	Wave Hgt.
------	----------	-----------	-----------	----------	-----------	-----------

0100						
0200						
0300						
0400						
0500						
0600						
0700						
0800	31-30	122-51				
0900	29	02				
1000	28	13				
1100	27	25				
1200	31-26	123-36				
1300		46				
1400		56				
1500		24-06				
1600		15				
1700		25				
1800						
1900						
2000	31-21	124-54				
2100						
2200						
2300						
2400						

56  
41  
97



Date 9 Dec Ship Tioga City <sup>LST</sup> (1158) Cruise No. 1

Organization \_\_\_\_\_ Recorder \_\_\_\_\_

Sunrise: Time 0712 Position: Lat. 31-04 <sup>30-47</sup> Long. 126-31  
Sunset: Time 1709 Position: Lat. 30-47 <sup>30-47</sup> Long. 124-41

Miles travelled from 0000 hours to sunrise = \_\_\_\_\_

Miles travelled from sunrise to sunset = 101

Miles travelled from sunset to 2400 hours = \_\_\_\_\_

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

1. cc at 0800

2.

3.

4.

5.

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

0100						
0200						
0300						
0400						
0500						
0600						
0700	<u>31-04</u>	<u>126-31</u>				
0800	<u>30-53</u>	<u>126-29</u>				
0900	<u>51</u>	<u>18</u>				
1000	<u>50</u>	<u>06</u>				
1100	<u>49</u>	<u>35</u>				
1200	<u>30-47</u>	<u>125-44</u>				
1300		<u>29</u>				
1400		<u>14</u>				
1500	<u>30-47</u>	<u>124 59</u>				
1600						
1700						
1800	<u>30-06</u>	<u>124-30</u>				
1900						
2000	<u>30-09</u>	<u>124-03</u>				
2100						
2200						
2300						
2400						

1315 P47B - 30-48 125-28



122

52 - 122-39

122-50 - 0760 - 5



Date 10 Dec Ship Tioga Chy (LST 1158) Cruise No. 1  
Organization \_\_\_\_\_ Recorder \_\_\_\_\_

Sunrise: Time 0654 Position: Lat. 30-~~52~~<sup>54</sup>, Long. 121-31  
Sunset: Time 1656 Position: Lat. 31-30, Long. 119-36

Miles travelled from 0000 hours to sunrise = \_\_\_\_\_

Miles travelled from sunrise to sunset = 109

Miles travelled from sunset to 2400 hours = \_\_\_\_\_

TIME OF FIX TYPE OF FIX LATITUDE LONGITUDE

1. c/c for 090 to 061° at Pt Oak
2. \_\_\_\_\_
3. \_\_\_\_\_
4. \_\_\_\_\_
5. \_\_\_\_\_

Hourly Positions:

Time Latitude Longitude Wind Dir. Wind Sp. Wave Dir. Wave Hgt.

0100						
0200						
0300						
0400						
0500						
0600	<u>30-52</u>	<u>121-44</u>				
0700		<u>11-30</u>				
0800	<u>53</u>	<u>121-16</u>				
0900	<u>121-53</u>	<u>121-00</u>				
1000		<u>49</u>				
1100	<u>59</u>	<u>37</u>				
1200	<u>31-04</u>	<u>120-26</u>				
1300	<u>09</u>	<u>16</u>				
1400	<u>31-14</u>	<u>120-05</u>				
1500	<u>19</u>	<u>55</u>				
1600	<u>30-24</u>	<u>119-45</u>				
1700	<u>29</u>					
1800						
1900						
2000						
2100						
2200						
2300						
2400						



3/16



PRELIMINARY REPORT

EASTERN AREA CRUISE #32

SAN DIEGO - Pt. ASH - SAN DIEGO

2 - 11 December 1967

EASTERN GRID SURVEY #18

3-10 December, 1967

Prepared

by

Robert L. DeLong (Grid)

T.J. Lewis (Nongrid)



## Preliminary Report

EAC #32  
2 - 11 December 1967

EGS #18  
3 - 10 December 1967

Support Ship: USS Tioga County (LST 1158)

Cruise Itinerary: 2 December (0800) - depart San Diego  
3 December (1135) - Enter Grid at Pt. Ash  
10 December (0910) - depart Grid at Pt. Ash  
11 December (0900) - Arrive San Diego.

Personnel: R. L. DeLong (BIC)  
T.J. Lewis  
R.L. Brownell

### Methods:

Diurnal observations were held from the bow, the forward gun mounts, and the lee wings of the bridge as weather conditions dictated. No nocturnal observations were conducted. The skiff was used for 2 hours on 7 December; one storm petrel was collected. No bathythermograph casts were made due to lack of equipment.

### Cruise track & conditions:

The cruise track (Figure 1) was altered from the normal on two occasions due to heavy weather. The LST class ship is not a satisfactory observation platform in the survey area. The ship rolls severely while running in the trough; and pounds unceasingly while running into the sea. During this survey with prevailing seas from the west severe pounding was encountered on all westerly legs. As the ship pounded on a swell and entered a trough it "shuddered" with 60-90 vibrations per minute. The constant abnormal ship movement did not allow observers to use glasses for scanning, thus the numbers of birds observed were certainly fewer than normal. This bias may approach a 25 percent reduction in observability from the normal conditions.

Weather during the survey was affected by a number of various sized, fast moving fronts. Moderate to heavy seas prevailed through all but two days of the survey. Sea temperatures (recorded as sea water injection temperatures in the engine room) varied only two degrees in the survey area. These readings (if accurate) indicate a very flat temperature field throughout the Grid, resulting from seasonal cooling at the surface and consequent overturning and mixing in the upper layers. The cooling and mixing may have been accelerated this month because of the several cold fronts passing through the area. The N.E. Pacific has been averaging 3-5° F. warmer than normal during this past summer and early fall. Rapid cooling would tend to bring temperatures back toward seasonal normal.



The distribution of albatross during this survey was not random. On 4 December 24 birds were recorded in section R in the northwest corner of the grid. This is the highest number of birds yet recorded on one day of observation. This also is the first time that the highest concentration of albatross has occurred in the northwest section.

It is to be noted that the two low counts in sectors S (north central) and Z (southeast) are in areas where little diurnal coverage was achieved. Since birds accumulate during the day, with highest numbers when garbage is dumped, a small linear mile coverage in an area in the morning hours will normally result in low numbers of albatross recorded.

Of the 39 birds examined for rump color, 34 (87 percent) were immatures (dark-rumped). Small numbers of white-rumped birds recorded indicate that the adult birds have returned to the breeding islands.

Fulmar (Fulmarus glacialis)

Number observed: 24

0	1	11
0	0	0
4	8	0

All were dark phase birds. The presence of birds in the southern portion of the area was not expected. In January and February sightings in the southern section accounted for less than one percent of the observations.

On tenuous evidence I suggest that when these birds arrive on the wintering grounds they go through a "shuffle period", one of wandering in search of a relatively constant food supply. Thus, arriving birds would be well scattered until they finally settle in "winter ranges" (this may also hold for immature Black-footed Albatross during early winter). During this survey, however, their distribution was not random.

Sooty Shearwater (Puffinus griseus)

Number observed: 79

2	6	57
1	5	4
1	3	0

Seventy two percent of the birds were recorded in the northeast corner of the grid. The birds were evenly distributed in other areas of the grid. No directional movement was recorded indicating that the "secondary migration" recorded on EGS 17 has terminated or reached a pause. Sooties were recorded in a feeding flock also containing Herring Gulls and Jaegers.

Leach's Storm Petrel (Oceanodroma leucorhoa)

Number observed: 81

7	3	30
19	10	6
1	5	0

A concentration (37 percent of observations) was recorded in the northeast corner of the grid. Observing conditions were very poor for sighting storm petrels due to the heavy seas and ship's characteristics (discussed above). Thus the quantitative observations on this species are not indicative of actual numbers.

Fork-tailed Storm Petrel (Oceanodroma furcata)

Number observed: 2

Single birds observed in sections R and V.



Red-tailed Tropicbird (Phaethon rubricauda) Number observed: 1

One adult bird flew about the ship for some minutes on 9 December at approximately 30° 48'N - 125°29'W in section X of the grid.

Scaup sp. (Aythya sp.) Number observed: 4

One lone bird and a group of three flew near the ship on 7 December at approximately 32°21'N - 122°12'W in section W.

Phalaropes

Number observed: 328

8	0	293
1	6	19
1	0	0

The concentration (90 percent) was recorded in the north-east sector. Both Northern and Red Phalaropes were identified and recorded on the basis of mantle color. I am not sure that we were correct in those identifications of Northern Phalaropes. Thus I prefer to lump them as Phalaropes. Attempts will be made on EGS 19 to collect heavily in this area to resolve this species composition problem.

Jaeger sp. (Stercorarius sp.) Number observed: 11

All were recorded in the northeast corner of the grid. One dark phase adult Pomarine Jaeger was identified. Jaegers were associated with one feeding flock containing Herring Gulls and Sooty Shearwaters; however, no parasitism was observed.

Glaucous-winged Gull (Larus glaucescens) Number observed: 5

1	0	0
1	1	0
0	2	0

All were first-winter immatures. These can be confused with Herring Gulls of the same age, but these observations are felt to be reliable.

Herring Gull (Larus argentatus) Number Observed: 114

1	9	85
1	7	0
0	10	1

The concentration recorded in the northeast corner is notable although some birds followed the ship as it entered the grid. The density of birds outside the grid near Point Ash was very high.

Black-legged Kittiwake Number observed: 4

0	0	2
0	1	0
0	1	0

This regular winter resident is still in low numbers.

Rhinoceros Auklet (Cerorhinca monocerata) Number observed: 3

Three birds were recorded in section T (the northeast section).

Xantus Murrelet (Endomychura hypoleuca) Number Observed: 3

None were seen from the ship, but on 5 December while in the skiff three birds were seen, all in section W.



During 732 miles of diurnal observations (68.6 hours) 73 albatross plus 676 birds of other species were recorded. Total linear density (birds per linear mile) was 1.02 with albatross, and 0.924 without albatross (see Black-footed Albatross species account). The density with albatross should be used if this parameter is to be of any value. Four sightings totaling 18 marine mammals were recorded in the Grid.

- 1) Increasing numbers of immature Black-footed Albatross in Grid area.
- 2) Near random dispersion of winter resident; i.e., not yet showing limited distribution as was first noted in January of this year.
- 3) Presence of non-migrating Sooty Shearwaters.
- 4) North section continues to show highest density.

SPECIES ACCOUNTS

Maximum counts:	December	3: 6
		4: 24
		5: 6
		6: 10
		7: 3
		8: 15
		9: 9
		10: (1)
	Total	<hr/> 74
(Mean)	Average	9.2

24	6	11
10	8	9
9	15	1

The distribution of albatross during the survey was not random. - - -  
- - - - - etc. - - - - -



TABLE 1. Summary of Diurnal Observation EGS 18, 3-10 December 1967.

	#Miles	# Hours	# Birds	#Species	Linear Density
3 December	55	5.5	111	12	2.018
4 December	117	10.1	45	8	0.384
5 December	105	10.2	436	13	4.152
6 December	106	10.3	41	7	0.386
7 December	124	10.0	57	10	0.359
8 December	97	10.2	47	7	0.484
9 December	101	10.0	23	8	0.227
10 December	27	2.3	2	2	0.074
Total	732	68.6	762	19*	1.040

\* Includes 74 Black-footed Albatross and 688 birds of other species.



TABLE 2. Sectional Abundance/Density, Eastern Grid Survey 18, 3-10 December 1967.

	(1) R	(2) S	(3) T	(4) U	(5) V	(6) W	(7) X	(8) Y	(9) Z	Total
Loon sp.			3/.027							3/.004
Fulmar		1/.045	11/.101				4/.043	8/.076		24/.033
Sooty Shearwater	2/.017	6/.272	57/.527	1/.010	5/.079	4/.04	1/.01	3/.028		79/.108
Cook's Petrel			2/.018							2/.003
Shearwater/Petrel			4/.037					2/.019		6/.008
"Leach's-type" Petrel	7/.060	3/.136	30/.277	19/.195	10/.158	6/.06	1/.01	5/.048		81/.111
Fork-tailed Storm Petrel	1/.008				1/.016					2/.003
Storm Petrel sp.			2/.018			1/.01		1/.009		4/.005
Red-tailed Tropicbird							1/.01			1/.001
Scaup						4/.04				4/.005
Phalarope sp.	8/.068		293/2.712	1/.010	6/.095	19/.119	1/.011			328/.448
Shorebird			1/.009							1/.001
Jaeger sp.			11/.101							11/.015
Glaucous-winged Gull	1/.008			1/.010	1/.016			2/.019		5/.007
Herring Gull	1/.008	9/.409	85/.787	1/.010	7/.111			10/.095	1/.037	114/.156
Gull sp.							1/.011			1/.001
Black-legged Kittiwake			2/.018		1/.016			1/.009		4/.005
Xantus Murrelet						3/.30				3/.004
Rhinoceros Auklet			3/.027							3/.004
Totals	20/.170	19/.863	504/4.666	23/.237	31/.492	37/.370	9/.097	32/.305	1/.037	676/.924
Miles	117	22	108	97	63	100	93	105	27	732
Species	6	4	11	5	7	5	6	7	1	



TABLE 3. North-South &amp; East -West abundance/density, EGS 18, 3-10 December 1967.

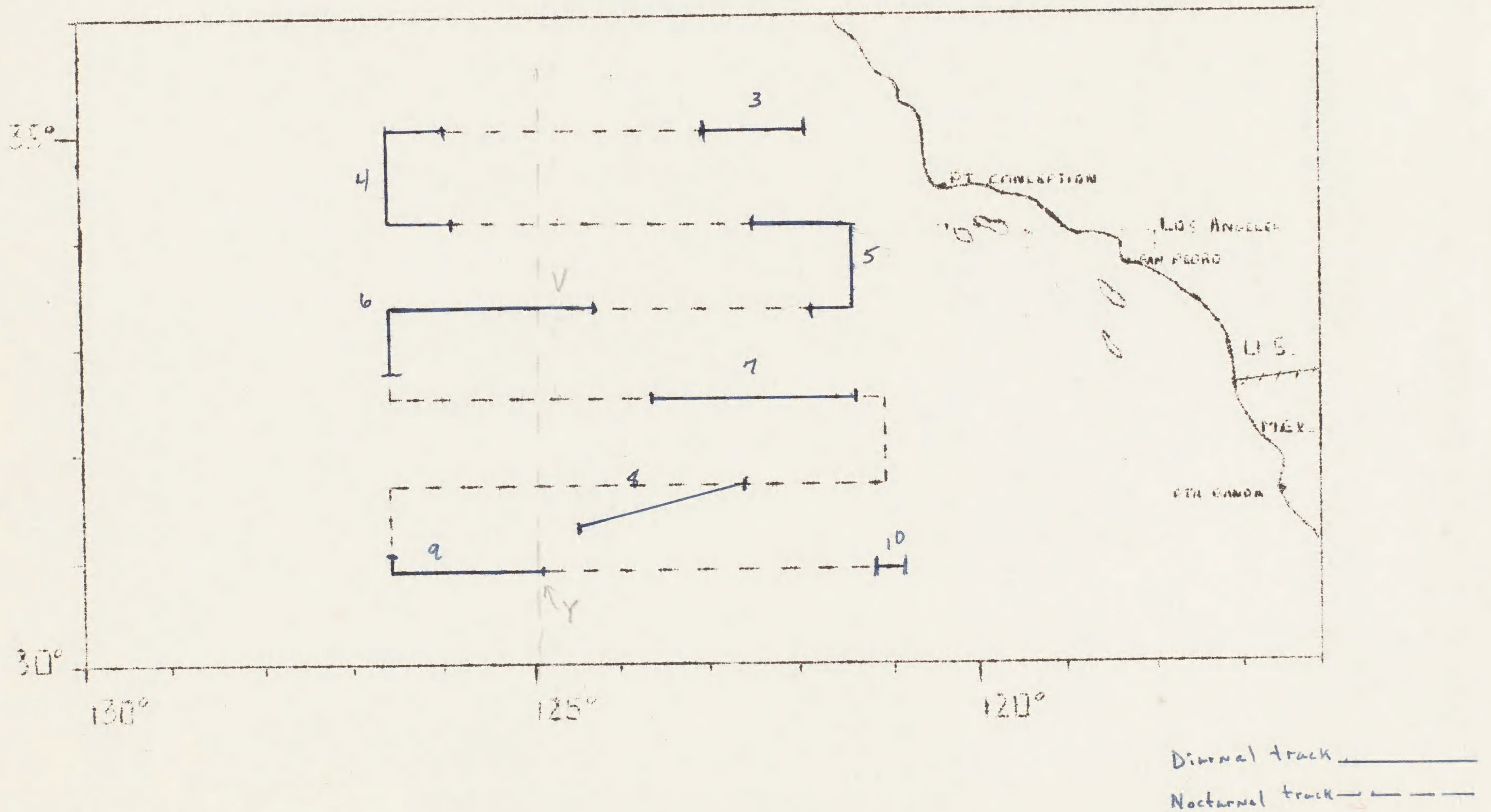
	N	C	S	E	C	W
Loon Sp.	3/.012			3/.013		
Fulmar	12/.049		12/.053	11/.047	9/.047	4/.013
Sooty Shearwater	65/.263	10/.038	4/.017	61/.260	14/.073	4/.013
Cooks Petrel	2/.008			2/.009		
Shearwater/Petrel	4/.016		2/.008	4/.017	2/.011	
Storm Petrel	43/.174	37/.142	7/.031	39/.166	20/.105	28/.091
Red-tailed Tropicbird			1/.004			1/.003
Scaup		4/.015		4/.017		
Phalarope sp.	301/1.22	26/.100	1/.004	312/1.33	6/.031	10/.032
Shorebird sp.	1/.004			1/.004		
Jaeger	11/.045			11/.042		
Glaucous-winged Gull	1/.004	2/.008	2/.008		3/.015	2/.006
Herring Gull	95/.384	8/.031	11/.048	86/.366	26/.136	2/.006
Black-legged Kittiwake	2/.008	1/.004	1/.004	2/.009	2/.011	
			1/.004			1/.003
Xantus Murrelet		3/.012		3/.013		
Rhinoceros Auklet	3/.012	.		3/.013		
Total	543/2.19	91/.350	42/.186	542/2.31	82/.432	52/.169
Miles	247	260	225	235	190	307



Figure 1.

Cruise Track, E S 18, 3-10 December 1967

# EASTERN PACIFIC OCEAN





# Non-Grid Observations

Observations were held on December 2 & 3 when proceeding to Pt. Ash from San Diego, and on December 10 when returning to San Diego from Pt. Oak. Observation conditions were fair to good on December 2 & 3 and poor on December 10.

On leaving Pt. Loma December 2 the ship was almost continually being passed by long lines of Brown Pelicans interspersed with a few cormorants. Later in the day many of these birds were seen feeding in company with Heerman Gulls in rather large flocks. During the few hours preceding arrival at Pt. Ash, several large flocks of Phalaropes were observed. These two outstanding features predominated the coastal trip north. The inbound leg on the 10th of December was rather dull except for the occurrence of the Red-billed Tropicbird.

TABLE 4. Summary of Non-Grid Observations - EAC 32.

	<u>Dec. 2</u>	<u>Dec. 3</u>	<u>Dec. 10</u>
Black-footed Albatross	-	2	5
Sooty Shearwater		8	
Pink-footed/New Zealand Shearwater		2	
Fulmar	1	4	2
Red-billed Tropicbird			1
Brown Pelican	627+		
Pelagic Cormorant	4		
Cormorant sp	58	1	
Red Phalarope		74	
Northern Phalarope		316	
Phalarope sp.		83	
California Gull	3	1	
Herring Gull		7	7
California/Herring Gull		50	
Western Gull	201+50		
Heermann's Gull	118+25		
Bonaparte's Gull	16		
Sabine's Gull	1		
Black-legged Kittiwake	1	4	
Gull sp	74		
Pomarine Jaeger	4	2	1
Parasitic Jaeger	1		
Jaeger sp	2		
Large Tern	2		
Loon sp	7		
Eared Grebe		2	
Common Murre	3		
Rhinoceros Auklet	1		
Small Alcid	1		
Total Birds	1,125	556	16
Miles	62	55	82
Hours			

Grand Total 1,697 birds



Marine Mammals EAC 32 - December 2

Few mammals were recorded in the Grid. The low numbers recorded are thought to be due in part to the heavy sea and poor observing conditions.

- 1043 - A single Zalophus californianus was observed porpoising along with the ship.
- 1254 - Between 4 and 6 Lagenorhynchus obliquidens of two subgroups were observed in a stationary position near the surface (feeding?). When the ship approached they crossed the port bow swimming to the east. All the dolphins were swimming at a much slower rate than that usually observed for this species. After surfacing they dropped to only a few feet below the surface before returning again to the surface.
- 1320 - One Zalophus was noted floating at the surface. When the ship approached the sea lion swam off to the east.
- 1358 - Globicephala scammoni (40<sup>+</sup>10) in 3 or 4 subgroups were noted to be in a semi stationary position on the surface. This schooling was similar to that called loafing group (Norris, 1958), except that dives of ca. 30-45 seconds were undertaken. They may have been feeding. Ages of the Pilot Whales were mixed. Large adult males, many medium-sized whales (300-400 cm), and calves or yearlings were noted.
- 1402 - Another Zalophus was noted porpoising.
- 1440 - A single Zalophus was floating near a small patch of Neocystis.
- 1610 - About 75<sup>+</sup>15 Globicephala in 4 or 5 subgroups, all seeming to be of medium size, were noted moving in a broad line south. This type of schooling is called traveling or hunting (Norris and Prescott, 1961).

No birds were noted with any of the above marine mammals today.

December 3 (Non-Grid)

- 0730 - About 20<sup>+</sup> 5 Dall Porpoises were seen but did not come to ship. I.D. was based on speed and surfacing pattern (pushing much water ahead, etc.).
- 0735 - About 15<sup>+</sup> 5 Dall Porpoise pushing a path of 6 to 8 feet of white water upon surfacing.
- 0750 - One Eumetopias jubata adult male (large) positioned with head out of water (nose-up) - Phocid - like behavior.

December 3 (Grid)

- 1233 Sector T - One Sperm Whale ca. 40 feet.
- 1456 Sector T - Fifteen Dall Porpoises approached within 200 meters of ship. Same fast water-pushing behavior upon surfacing.

December 5

- 0946 - One Killer Whale 14 to 18 ft. Dorsal ca. 2-1/2 ft. high. Saddle aft



December 5 Grid

0946 - (cont'd)

of dorsal showed well. Blows not well defined - only small bulbous spray.

December 10

0835 Sector Z - One Humpback Whale. I.D. based on behavior, jumping out of water 2 times.

#### References

- Norris, Kenneth S. 1958. The big one got away. Pacific Discovery 11(5):3-9.
- Norris, Kenneth S., and John H. Prescott. 1961. Observations on Pacific Cetaceans of Californian and Mexican Waters. Univ. Calif. Pub. Zool. 63(4):291-402.



TABLE II  
SYNOPTIC OBSERVATIONS

021600U 76 03 1000U

FIRST GROUP OF MESSAGE	Day of Week (1-7) (GMT)	POSITION OF SHIP			TIME (GMT)	Total Cloud Amt. (Coded)	WIND		Visi- bil- ity (90-99)	WEATHER		PRESSURE	AIR TEMP. (°C)	CLOUDS					Course of Ship (0-9)	Speed of Ship (0-9)	3-HOUR PRESSURE TENDENCY		SIGNIFICANT CLOUD			
		Oc- tant (0-3) (5-8)	Latitude (Degrees and tenths)	Longitude (Degrees and tenths)			Direction (True) (00-36)	Speed (True) (Knts)		Present (00-99)	Past (0-9)			Barameter Corrected (Mb)	Amount of Low Cloud	Type of C <sub>L</sub> (0-9)	Height of Low Cloud	Type of C <sub>M</sub> (0-9)			Type of C <sub>H</sub> (0-9)	Characteristic (0-8)	Amount of Change (Mb and tenths)	Indicator	Amount (Eights)	Type
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
	Y	Q	L <sub>a</sub> L <sub>a</sub> L <sub>a</sub>	L <sub>a</sub> L <sub>a</sub> L <sub>a</sub>	GG	N	dd	ff	VV	ww	W	ppp	TT	N <sub>h</sub>	C <sub>L</sub>	h	C <sub>M</sub>	C <sub>H</sub>	D <sub>s</sub>	V <sub>s</sub>	a	pp	8	N <sub>s</sub>	C	h <sub>s</sub> h <sub>s</sub>
SHIP	1	1	333	179	00	0	31	12	98	02	0	159	17	0	0	90	0	2	3	0	00	8	0	0	50	
SHIP	1	1	339	191	06	0	30	15	99	02	0	159	15	0	0	90	0	6	4	4	00	8	0	0	00	
SHIP	1	1	343	204	12	0	28	20	99	02	0	156	14	0	0	90	0	7	4	4	00	8	0	0	00	
SHIP	1	1	348	216	18	8	14	21	99	61	1	159	15	7	4	4	7	1	6	4	007	8	5	7	15	

Indicator	AIR-SEA DIFF. (Coded)	DEW POINT (°C)	SEA WAVES				SWELL WAVES				ICE ACCRETION				SEA ICE					
			Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Source	Thickness	Rate	Indicator	Kind	Effect	Bearing	Distance	Orientation
28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
0	T <sub>s</sub> T <sub>s</sub>	T <sub>d</sub> T <sub>d</sub>	1	d <sub>w</sub> d <sub>w</sub>	P <sub>w</sub>	H <sub>w</sub>	1	d <sub>w</sub> d <sub>w</sub>	P <sub>w</sub>	H <sub>w</sub>	2	I <sub>s</sub>	E <sub>s</sub> E <sub>s</sub>	R <sub>s</sub>	ICE	C <sub>2</sub>	K	D <sub>i</sub>	r	e
0	53 13		1	31	2	1	1	<del>00</del>	<del>0</del>	<del>0</del>	2				ICE					
0	60 09		1	30	2	1	1	<del>00</del>	<del>0</del>	<del>0</del>	2				ICE					
0	57 11		1	28	2	1	1	<del>00</del>	<del>0</del>	<del>0</del>	2				ICE					
0	66 12		1	14	2	1	1	30	6	7	2				ICE					

DO NOT TRANSMIT		
Dry Bulb (Degrees and tenths)	Wet Bulb (Degrees and tenths)	Sea Water Temp. (Degrees and tenths)
A <sub>1</sub>	A <sub>2</sub>	A <sub>3</sub>
Celsius	Celsius	Celsius
		60.62
		62
		62
		62

REMARKS \_\_\_\_\_ EXAMINED \_\_\_\_\_ USN, NAVIGATOR



2)

TABLE II  
SYNOPTIC OBSERVATIONS

031600 U TO 041000 U DEC 1967

FIRST GROUP OF MESSAGE	Day of Week (1-7) (GMT)	POSITION OF SHIP			TIME (GMT)	Total Cloud Amt. (Coded)	WIND		Visi-bil-ity (90-99)	WEATHER		PRESSURE	AIR TEMP. (°C)	CLOUDS					Course of Ship (0-9)	Speed of Ship (0-9)	3-HOUR PRESSURE TENDENCY		SIGNIFICANT CLOUD			
		Occur-ent (0-3) (5-8)	Latitude (Degrees and tenths)	Longitude (Degrees and tenths)			Direction (True) (00-36)	Speed (True) (Knots)		Present (00-99)	Past (0-9)			Amount of Low Cloud	Type of C <sub>L</sub> (0-9)	Height of Low Cloud	Type of C <sub>M</sub> (0-9)	Type of C <sub>H</sub> (0-9)			Characteristic (0-8)	Amount of Change (Mb and tenths)	Indicator	Amount (Eights)	Type	Height
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
	Y	Q	L <sub>o</sub> L <sub>o</sub> L <sub>o</sub>	L <sub>o</sub> L <sub>o</sub> L <sub>o</sub>	GG	N	dd	ff	VV	ww	W	ppp	TT	N <sub>h</sub>	C <sub>L</sub>	h	C <sub>M</sub>	C <sub>H</sub>	D <sub>s</sub>	V <sub>s</sub>	a	pp	8	N <sub>s</sub>	C	h <sub>s</sub> h <sub>s</sub>
SHIP	2	1	350	228	00	7	23	20	99	25	8	115	15	6	4	4	1	/	6	4	6	10	8	6	7	13
SHIP	2	1	350	241	06	0	33	13	99	02	0	125	15	0	0	/	0	0	6	4	4	00	8	0	/	99
SHIP	2	1	350	252	12	0	27	12	99	02	0	125	15	0	0	9	0	0	6	4	4	00	8	0	/	99
SHIP	2	1	350	265	18	5	02	21	99	01	2	139	17	4	2	6	6	1	4	4	4	00	8	5	8	45

Indicator	AIR-SEA DIFF. (Coded)	DEW POINT (°C)	SEA WAVES				SWELL WAVES				ICE ACCRETION				SEA ICE					
			Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Source	Thickness	Rate	Indicator	Kind	Effect	Bearing	Distance	Orientation
28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
0	T <sub>s</sub> T <sub>s</sub>	T <sub>d</sub> T <sub>d</sub>	1	d <sub>w</sub> d <sub>w</sub>	P <sub>w</sub>	H <sub>w</sub>	1	d <sub>w</sub> d <sub>w</sub>	P <sub>w</sub>	H <sub>w</sub>	2	I <sub>s</sub>	E <sub>s</sub> E <sub>s</sub>	R <sub>s</sub>	ICE	C <sub>2</sub>	K	D <sub>i</sub>	r	e
0	54 14		1	23	2	2	1	28	5	7	2				ICE					
0	53 14		1	/	/	/	1	/	/	/	2				ICE					
0	53 14		1	27	2	1	1	31	4	5	2				ICE					
0	51 16		1	25	2	1	1	30	5	6	2				ICE					

DO NOT TRANSMIT		
Dry Bulb (Degrees and tenths)	Wet Bulb (Degrees and tenths)	Sea Water Temp. (Degrees and tenths)
A <sub>1</sub>	A <sub>2</sub>	A <sub>3</sub>
Celsius	Celsius	Celsius
		58.60
		60
		62
		62

REMARKS \_\_\_\_\_ EXAMINED \_\_\_\_\_ USN, NAVIGATOR



TABLE II  
SYNOPTIC OBSERVATIONS

04 16004

to

05 10004

FIRST GROUP OF MESSAGE	Day of Week (1-7) (GMT)	POSITION OF SHIP			TIME (GMT)	Total Cloud Amt. (Coded)	WIND		Visi-bil-ity (90-99)	WEATHER		PRESSURE	AIR TEMP. (°C)	CLOUDS					Course of Ship (0-9)	Speed of Ship (0-9)	3-HOUR PRESSURE TENDENCY		SIGNIFICANT CLOUD			
		Occur-ent (0-3) (5-8)	Latitude (Degrees and tenths)	Longitude (Degrees and tenths)			Direction (True) (00-36)	Speed (True) (Knots)		Present (00-99)	Past (0-9)			Amount of Low Cloud	Type of C <sub>L</sub> (0-9)	Height of Low Cloud	Type of C <sub>M</sub> (0-9)	Type of C <sub>H</sub> (0-9)			Characteristic (0-8)	Amount of Change (Mb and tenths)	Indicator	Amount (Eighths)	Type	Height
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
	Y	Q	L <sub>o</sub> L <sub>o</sub> L <sub>o</sub>	L <sub>o</sub> L <sub>o</sub> L <sub>o</sub>	GG	N	dd	ff	VV	ww	W	ppp	TT	N <sub>h</sub>	C <sub>L</sub>	h	C <sub>M</sub>	C <sub>H</sub>	D <sub>s</sub>	V <sub>s</sub>	a	pp	8	N <sub>s</sub>	C	h <sub>s</sub> h <sub>s</sub>
SHIP	3	1	342	267	00	4	25	18	99	03	1	146	22	2	2	4	6	5	2	4	4	65	8	3	8	15
SHIP	3	1	341	246	06	0	25	17	98	02	0	159	17	0	0	/	0	0	2	4	7	07	8	0	/	/
SHIP	3	1	342	232	12	6	27	16	97	50	2	180	15	6	6	5	/	/	2	4	1	09	8	6	7	20
SHIP	3	1	341	217	18	2	35	20	98	01	0	217	24	2	1	6	0	9	2	4	2	17	8	2	8	45

1000

Indicator	AIR-SEA DIFF. (Coded)	DEW POINT (°C)	SEA WAVES				SWELL WAVES				ICE ACCRETION				SEA ICE					
			Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Source	Thickness	Rate	Indicator	Kind	Effect	Bearing	Distance	Orientation
28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
0	T <sub>s</sub> T <sub>s</sub>	T <sub>d</sub> T <sub>d</sub>	1	d <sub>w</sub> d <sub>w</sub>	P <sub>w</sub>	H <sub>w</sub>	1	d <sub>w</sub> d <sub>w</sub>	P <sub>w</sub>	H <sub>w</sub>	2	I <sub>s</sub>	E <sub>s</sub> E <sub>s</sub>	R <sub>s</sub>	ICE	C <sub>2</sub>	K	D <sub>i</sub>	r	e
0	59 19		1	20 3	3		1	131 4	4		2				ICE					
0	50 14		1	/	/	/	1	/	/	/	2				ICE					
0	52 14		1	/	/	/	1	/	/	/	2				ICE					
0	07 13		1	35 2	1		1	30 5	5		2				ICE					

DO NOT TRANSMIT		
Dry Bulb (Degrees and tenths)	Wet Bulb (Degrees and tenths)	Sea Water Temp. (Degrees and tenths)
A <sub>1</sub>	A <sub>2</sub>	A <sub>3</sub>
Celsius	Celsius	Celsius
		62
		64
		60
		62

REMARKS \_\_\_\_\_ EXAMINED \_\_\_\_\_ USN, NAVIGATOR



TABLE II  
SYNOPTIC OBSERVATIONS

051600Z To 061000Z

FIRST GROUP OF MESSAGE	Day of Week (1-7) (GMT)	POSITION OF SHIP			TIME (GMT)	Total Cloud Amt. (Coded)	WIND		Visi- bil- ity (90-99)	WEATHER		PRESSURE  Barometer Corrected (Mb)	AIR TEMP. (°C)	CLOUDS					Course of Ship (0-9)	Speed of Ship (0-9)	3-HOUR PRESSURE TENDENCY		SIGNIFICANT CLOUD			
		Oc- tant (0-3) (5-8)	Latitude (Degrees and tenths)	Longitude (Degrees and tenths)			Direction (True) (00-36)	Speed (True) (Knots)		Present (00-99)	Past (0-9)			Amount of Low Cloud	Type of C <sub>L</sub> (0-9)	Height of Low Cloud	Type of C <sub>M</sub> (0-9)	Type of C <sub>H</sub> (0-9)			Characteristic (0-8)	Amount of Change (Mb and tenths)	Indicator	Amount (Eights)	Type	Height
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
	Y	Q	L <sub>o</sub> L <sub>a</sub> L <sub>a</sub>	L <sub>o</sub> L <sub>o</sub> L <sub>o</sub>	GG	N	dd	ff	VV	ww	W	ppp	TT	N <sub>h</sub>	C <sub>L</sub>	h	C <sub>M</sub>	C <sub>H</sub>	D <sub>s</sub>	V <sub>s</sub>	a	pp	8	N <sub>s</sub>	C	h <sub>s</sub> h <sub>s</sub>
SHIP	4	1	333	213	00	5	33	20	98	16	1	213	18	2	2	4	7	0	4	4	4	00	8	3	4	30
SHIP	4	1	332	224	06	0	35	15	98	00	1	237	14	0	0	9	0	0	6	4	1	24	8	0	1	99
SHIP	4	1	330	237	12	0	01	14	98	02	0	227	14	0	0	9	0	0	6	4	4	00	8	0	1	94
SHIP	4	1	338	252	18	8	23	18	94	02	2	240	17	8	0	6	50	6	4	0	07	8	5	3	35	

Indicator	AIR-SEA DIFF. (Coded)	DEW POINT (°C)	SEA WAVES				SWELL WAVES				ICE ACCRETION				SEA ICE						DO NOT TRANSMIT		
			Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Source	Thickness	Rate	Indicator	Kind	Effect	Bearing	Distance	Orientation	Dry Bulb (Degrees and tenths)	Wet Bulb (Degrees and tenths)	Sea Water Temp. (Degrees and tenths)
28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	A <sub>1</sub>	A <sub>2</sub>	A <sub>3</sub>
0	T <sub>s</sub> T <sub>s</sub>	T <sub>d</sub> T <sub>d</sub>	1	d <sub>w</sub> d <sub>w</sub>	P <sub>w</sub>	H <sub>w</sub>	1	d <sub>w</sub> d <sub>w</sub>	P <sub>w</sub>	H <sub>w</sub>	2	I <sub>s</sub>	E <sub>s</sub> E <sub>s</sub>	R <sub>s</sub>	ICE	C <sub>2</sub>	K	D <sub>i</sub>	r	e	Celsius	Celsius	Celsius
0	53 14		1	01	2	2	1	33	4	4	2				ICE								64
0	52 09		1	35	2	2	1	30	4	8	2				ICE								62
0	51 08		1	01	/	/	1	35	/	/	2				ICE								60
0	53 12		1	24	2	1	1	29	4	4	2				ICE								60

REMARKS \_\_\_\_\_ EXAMINED \_\_\_\_\_ USN, NAVIGATOR



TABLE II  
SYNOPTIC OBSERVATIONS

061600 U TO 071000 U

FIRST GROUP OF MESSAGE	Day of Week (1-7) (GMT)	POSITION OF SHIP			TIME (GMT)	Total Cloud Amt. (Coded)	WIND		Visi- bil- ity (90-99)	WEATHER		PRESSURE  Barometer Corrected (Mb)	AIR TEMP. (°C)	CLOUDS					Course of Ship (0-9)	Speed of Ship (0-9)	3-HOUR PRESSURE TENDENCY		SIGNIFICANT CLOUD			
		Oc- tant (0-3) (5-8)	Latitude (Degrees and tenths)	Longitude (Degrees and tenths)			Direction (True) (00-36)	Speed (True) (Knots)		Present (00-99)	Past (0-9)			Amount of Low Cloud	Type of C <sub>L</sub> (0-9)	Height of Low Cloud	Type of C <sub>M</sub> (0-9)	Type of C <sub>H</sub> (0-9)			Characteristic (0-8)	Amount of Change (Mb and tenths)	Indicator	Amount (Eights)	Type	Height
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
	Y	Q	L <sub>a</sub> L <sub>a</sub> L <sub>a</sub>	L <sub>o</sub> L <sub>o</sub> L <sub>o</sub>	GG	N	dd	ff	VV	ww	W	ppp	TT	N <sub>h</sub>	C <sub>L</sub>	h	C <sub>M</sub>	C <sub>H</sub>	D <sub>s</sub>	V <sub>s</sub>	a	pp	8	N <sub>s</sub>	C	h <sub>s</sub> h <sub>s</sub>
SHIP	5	1	329	260	00	6	22	17	98	03	1	210	17	5	4	5	3	0	06	46	10	8	5	6	36	
SHIP	5	1	325	260	06	8	27	17	98	02	2	217	17	8	6	5	/	/	2	4	4	00	8	8	7	35
SHIP	3	1	324	240	12	4	28	15	98	02	1	200	17	3	6	5	/	/	2	4	4	00	8	3	7	45
SHIP	5	1	324	230	18	0	29	14	99	02	0	196	18	0	0	9	0	1	2	4	4	00	8	0	0	75

Indicator	AIR-SEA DIFF. (Coded)	DEW POINT (°C)	SEA WAVES				SWELL WAVES				ICE ACCRETION				SEA ICE					
			Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Source	Thickness	Rate	Indicator	Kind	Effect	Bearing	Distance	Orientation
28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
0	T <sub>s</sub> T <sub>s</sub>	T <sub>d</sub> T <sub>d</sub>	1	d <sub>w</sub> d <sub>w</sub>	P <sub>w</sub>	H <sub>w</sub>	1	d <sub>w</sub> d <sub>w</sub>	P <sub>w</sub>	H <sub>w</sub>	2	I <sub>s</sub>	E <sub>s</sub> E <sub>s</sub>	R <sub>s</sub>	ICE	C <sub>2</sub>	K	D <sub>i</sub>	r	e
0	03	13	1	21	2	1	1	34	4	2	2				ICE					
0	03	13	1	260	/	/	1	33	/	/	2				ICE					
0	20	18	1	28	2	1	1	29	3	2	2				ICE					
0	/	/	1	/	/	/	1	/	/	/	2				ICE					

DO NOT TRANSMIT		
Dry Bulb (Degrees and tenths)	Wet Bulb (Degrees and tenths)	Sea Water Temp. (Degrees and tenths)
A <sub>1</sub>	A <sub>2</sub>	A <sub>3</sub>
Celsius	Celsius	Celsius
		60
		60
		60
		60

REMARKS \_\_\_\_\_ EXAMINED \_\_\_\_\_ USN, NAVIGATOR



TABLE II  
SYNOPTIC OBSERVATIONS

071000U TO 081000U

FIRST GROUP OF MESSAGE	Day of Week (1-7) (GMT)	POSITION OF SHIP			TIME (GMT)	Total Cloud Amt. (Coded)	WIND		Visi-bil-ity (90-99)	WEATHER		PRESSURE	AIR TEMP. (°C)	CLOUDS					Course of Ship (0-9)	Speed of Ship (0-9)	3-HOUR PRESSURE TENDENCY		SIGNIFICANT CLOUD			
		Oc-tant (0-3) (5-8)	Latitude (Degrees and tenths)	Longitude (Degrees and tenths)			Direction (True) (00-36)	Speed (True) (Knots)		Present (00-99)	Past (0-9)			Amount of Low Cloud	Type of C <sub>L</sub> (0-9)	Height of Low Cloud	Type of C <sub>M</sub> (0-9)	Type of C <sub>H</sub> (0-9)			Characteristic (0-8)	Amount of Change (Mb and tenths)	Indicator	Amount (Eights)	Type	Height
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
	Y	Q	L <sub>o</sub> L <sub>o</sub> L <sub>o</sub>	L <sub>o</sub> L <sub>o</sub> L <sub>o</sub>	GG	N	dd	ff	VV	ww	W	ppp	TT	N <sub>h</sub>	C <sub>L</sub>	h	C <sub>M</sub>	C <sub>H</sub>	D <sub>s</sub>	V <sub>s</sub>	a	pp	8	N <sub>s</sub>	C	h <sub>s</sub> h <sub>s</sub>
SHIP	6	1	323	219	00	8	33	30	98	15	1	186	18	8	7	1	4	0	2	4	6	17	8	6	7	10
SHIP	6	1	318	210	06	6	33	28	98	02	2	193	15	6	7	4	0	0	4	4	2	20	8	6	7	10
SHIP	6	1	328	223	12	9	33	26	98	02	2	183	14	9	6	5	/	/	6	4	0	07	8	9	7	20
SHIP	6	1	315	233	18	6	02	20	98	02	2	163	15	6	6	6	2	/	6	4	4	00	8	6	7	29

Indicator	AIR-SEA DIFF. (Coded)	DEW POINT (°C)	SEA WAVES				SWELL WAVES				ICE ACCRETION				SEA ICE					
			Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Source	Thickness	Rate	Indicator	Kind	Effect	Bearing	Distance	Orientation
28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
0	T <sub>s</sub> T <sub>s</sub>	T <sub>d</sub> T <sub>d</sub>	1	d <sub>w</sub> d <sub>w</sub>	P <sub>w</sub>	H <sub>w</sub>	1	d <sub>w</sub> d <sub>w</sub>	P <sub>w</sub>	H <sub>w</sub>	2	I <sub>s</sub>	E <sub>s</sub> E <sub>s</sub>	R <sub>s</sub>	ICE	C <sub>2</sub>	K	D <sub>i</sub>	r	e
0	00	14	1	01	3	2	1	33	3	4	2				ICE					
0	51	11	1	34	3	2	1	32	3	4	2				ICE					
0	57	09	1	33	/	/	1	33	/	/	2				ICE					
0	51	14	1	02	2	2	1	33	4	7	2				ICE					

DO NOT TRANSMIT		
Dry Bulb (Degrees and tenths)	Wet Bulb (Degrees and tenths)	Sea Water Temp. (Degrees and tenths)
A <sub>1</sub>	A <sub>2</sub>	A <sub>3</sub>
Celsius	Celsius	Celsius
		60
		60
		62
		62

REMARKS

EXAMINED

USN, NAVIGATOR



## SYNOPTIC OBSERVATIONS

081600U TO 091000U

FIRST GROUP OF MESSAGE	Day of Week (1-7) (GMT)	POSITION OF SHIP			TIME (GMT)	Total Cloud Amt., (Coded)	WIND		Visi- bil- ity (90-99)	WEATHER		PRESSURE	AIR TEMP. (°C)	CLOUDS					Course of Ship (0-9)	Speed of Ship (0-9)	3-HOUR PRESSURE TENDENCY		SIGNIFICANT CLOUD				
		Oc- tant (0-3) (5-8)	Latitude (Degrees and tenths)	Longitude (Degrees and tenths)			Direction (True) (00-36)	Speed (True) (Knots)		Present (00-99)	Past (0-9)			Barometer Corrected (Mb)	Amount of Low Cloud	Type of C <sub>L</sub> (0-9)	Height of Low Cloud	Type of C <sub>M</sub> (0-9)			Type of C <sub>H</sub> (0-9)	Characteristic (0-8)	Amount of Change (Mb and tenths)	Indicator	Amount (Eights)	Type	Height
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	
	Y	Q	L <sub>a</sub> L <sub>a</sub> L <sub>a</sub>	L <sub>o</sub> L <sub>o</sub> L <sub>o</sub>	GG	N	dd	ff	VV	ww	W	ppp	TT	N <sub>h</sub>	C <sub>L</sub>	h	C <sub>M</sub>	C <sub>H</sub>	D <sub>s</sub>	V <sub>s</sub>	a	pp	8	N <sub>s</sub>	C	h <sub>s</sub> h <sub>s</sub>	
SHIP	7	1	313	245	00	7	33	20	98	01	2	196	14	7	5	6	7	/	64	6	03	8	7	6	40		
SHIP	7	1	313	253	06	7	33	28	98	02	2	224	15	0	/	/	/	/	64	2	27	8	9	/	/		
SHIP	7	1	313	257	12	7	04	13	98	02	2	224	15	7	4	6	6	/	64	0	00	8	7	6	40		
SHIP	7	1	308	263	18	7	01	20	98	01	2	244	18	7	5	6	/	/	24	3	10	8	7	6	37		

Indicator	AIR-SEA DIFF. (Coded)	DEW POINT (°C)	SEA WAVES				SWELL WAVES				ICE ACCRETION				SEA ICE					
			Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Source	Thickness	Rate	Indicator	Kind	Effect	Bearing	Distance	Orientation
28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
0	T <sub>s</sub> T <sub>s</sub>	T <sub>d</sub> T <sub>d</sub>	1	d <sub>w</sub> d <sub>w</sub>	P <sub>w</sub>	H <sub>w</sub>	1	d <sub>w</sub> d <sub>w</sub>	P <sub>w</sub>	H <sub>w</sub>	2	I <sub>s</sub>	E <sub>s</sub> E <sub>s</sub>	R <sub>s</sub>	ICE	C <sub>2</sub>	K	D <sub>i</sub>	r	e
0	52	09	1	33	3	4	1	31	4	7	2				ICE					
0	51	57	1	33	3	4	1	30	5	7	2				ICE					
0	51	12	1	04	/	/	1	/	/	/	2				ICE					
0	06	19	1	01	/	/	1	01	5	9	2				ICE					

DO NOT TRANSMIT		
Dry Bulb (Degrees and tenths)	Wet Bulb (Degrees and tenths)	Sea Water Temp. (Degrees and tenths)
A <sub>1</sub>	A <sub>2</sub>	A <sub>3</sub>
Celsius	Celsius	Celsius
		60
		60
		60
		62

REMARKS

EXAMINED

USN, NAVIGATOR



TABLE II  
SYNOPTIC OBSERVATIONS

091600H TO 101000H

FIRST GROUP OF MESSAGE	Day of Week (1-7) (GMT)	POSITION OF SHIP			TIME (GMT)	Total Cloud Amt. (Coded)	WIND		Visi- bil- ity (90-99)	WEATHER		PRESSURE  Barometer Corrected (Mb)	AIR TEMP. (°C)	CLOUDS					Course of Ship (0-9)	Speed of Ship (0-9)	3-HOUR PRESSURE TENDENCY		SIGNIFICANT CLOUD			
		Occ- tant (0-3) (5-8)	Latitude (Degrees and tenths)	Longitude (Degrees and tenths)			Direction (True) (00-36)	Speed (True) (Knots)		Present (00-99)	Past (0-9)			Amount of Low Cloud	Type of C <sub>L</sub> (0-9)	Height of Low Cloud	Type of C <sub>M</sub> (0-9)	Type of C <sub>H</sub> (0-9)			Characteristic (0-8)	Amount of Change (Mb and tenths)	Indicator	Amount (Eights)	Type	Height
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27
	Y	Q	L <sub>a</sub> L <sub>a</sub> L <sub>a</sub>	L <sub>o</sub> L <sub>o</sub> L <sub>o</sub>	GG	N	dd	ff	VV	ww	W	ppp	TT	N <sub>h</sub>	C <sub>L</sub>	h	C <sub>M</sub>	C <sub>H</sub>	D <sub>s</sub>	V <sub>s</sub>	a	pp	8	N <sub>s</sub>	C	h <sub>s</sub> h <sub>s</sub>
SHIP	1	1	308	246	00	4	04	26	98	02	1	217	23	4	1	6	0	0	24	2	03	8	5	8	50	
SHIP	1	1	309	236	06	2	08	24	98	01	0	234	17	2	1	6	0	0	24	2	03	8	2	8	50	
SHIP	1	1	309	218	12	1	06	20	98	01	0	234	18	1	1	6	0	0	24	2	03	8	1	8	50	
SHIP	1	1	309	208	18	0	05	15	99	02	0	234	21	0	0	0	0	0	14	4	00	8	0	0	00	
	#	#																								

Indicator	AIR-SEA DIFF. (Coded)	DEW POINT (°C)	SEA WAVES				SWELL WAVES				ICE ACCRETION				SEA ICE					
			Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Direction (Coded)	Period (Coded)	Height (Coded)	Indicator	Source	Thickness	Rate	Indicator	Kind	Effect	Bearing	Distance	Orientation
28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48
0	T <sub>s</sub> T <sub>s</sub>	T <sub>d</sub> T <sub>d</sub>	1	d <sub>w</sub> d <sub>w</sub>	P <sub>w</sub>	H <sub>w</sub>	1	d <sub>w</sub> d <sub>w</sub>	P <sub>w</sub>	H <sub>w</sub>	2	I <sub>s</sub>	E <sub>s</sub> E <sub>s</sub>	R <sub>s</sub>	ICE	C <sub>2</sub>	K	D <sub>i</sub>	r	e
0	12	18	1	04	2	4	1	03	5	7	2				ICE					
0	00	14	1	08	/	/	1	04	/	/	2				ICE					
0			1	06	/	/	1	02	/	/	2				ICE					
0	08	11	1	04	2	1	1	33	3	4	2				ICE					

DO NOT TRANSMIT		
Dry Bulb (Degrees and tenths)	Wet Bulb (Degrees and tenths)	Sea Water Temp. (Degrees and tenths)
A <sub>1</sub>	A <sub>2</sub>	A <sub>3</sub>
Celsius	Celsius	Celsius
		62
		62
		62
		62

REMARKS \_\_\_\_\_ EXAMINED \_\_\_\_\_ USN, NAVIGATOR